Final

May 1, 2018

```
In [3]: %pylab inline
Populating the interactive namespace from numpy and matplotlib
In [4]: from sklearn.manifold import TSNE
In [5]: # Loading the iris datset
     from sklearn.datasets import load_iris
     iris = load_iris()
In [8]: iris.keys()
Out[8]: dict_keys(['data', 'target', 'target_names', 'DESCR', 'feature_names'])
In [9]: iris.target_names
Out[9]: array(['setosa', 'versicolor', 'virginica'], dtype='<U10')</pre>
In [10]: iris.feature_names
Out[10]: ['sepal length (cm)',
      'sepal width (cm)',
      'petal length (cm)',
      'petal width (cm)']
In [11]: iris.target
1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2,
          In [15]: help(TSNE)
```

Help on class TSNE in module sklearn.manifold.t_sne:

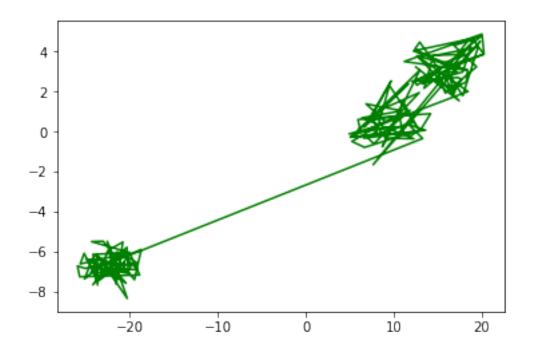
class TSNE(sklearn.base.BaseEstimator) t-distributed Stochastic Neighbor Embedding. | t-SNE [1] is a tool to visualize high-dimensional data. It converts | similarities between data points to joint probabilities and tries to minimize the Kullback-Leibler divergence between the joint | probabilities of the low-dimensional embedding and the | high-dimensional data. t-SNE has a cost function that is not convex, i.e. with different initializations we can get different results. It is highly recommended to use another dimensionality reduction method (e.g. PCA for dense data or TruncatedSVD for sparse data) to reduce the number of dimensions to a reasonable amount (e.g. 50) | if the number of features is very high. This will suppress some noise and speed up the computation of pairwise distances between samples. For more tips see Laurens van der Maaten's FAQ [2]. Read more in the :ref:`User Guide <t_sne>`. | Parameters n_components : int, optional (default: 2) Dimension of the embedded space. perplexity: float, optional (default: 30) The perplexity is related to the number of nearest neighbors that is used in other manifold learning algorithms. Larger datasets usually require a larger perplexity. Consider selecting a value between 5 and 50. The choice is not extremely critical since t-SNE is quite insensitive to this parameter. early_exaggeration : float, optional (default: 12.0) Controls how tight natural clusters in the original space are in the embedded space and how much space will be between them. For larger values, the space between natural clusters will be larger in the embedded space. Again, the choice of this parameter is not very critical. If the cost function increases during initial optimization, the early exaggeration factor or the learning rate might be too high. learning_rate : float, optional (default: 200.0) The learning rate for t-SNE is usually in the range [10.0, 1000.0]. If the learning rate is too high, the data may look like a 'ball' with any point approximately equidistant from its nearest neighbours. If the learning rate is too low, most points may look compressed in a dense cloud with few outliers. If the cost function gets stuck in a bad local

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minimum increasing the learning rate may help.
n_iter : int, optional (default: 1000)
     Maximum number of iterations for the optimization. Should be at
     least 250.
 n_iter_without_progress : int, optional (default: 300)
     Maximum number of iterations without progress before we abort the
     optimization, used after 250 initial iterations with early
     exaggeration. Note that progress is only checked every 50 iterations so
     this value is rounded to the next multiple of 50.
      .. versionadded:: 0.17
        parameter *n_iter_without_progress* to control stopping criteria.
 min_grad_norm : float, optional (default: 1e-7)
     If the gradient norm is below this threshold, the optimization will
     be stopped.
 metric : string or callable, optional
     The metric to use when calculating distance between instances in a
     feature array. If metric is a string, it must be one of the options
     allowed by scipy.spatial.distance.pdist for its metric parameter, or
     a metric listed in pairwise.PAIRWISE_DISTANCE_FUNCTIONS.
     If metric is "precomputed", X is assumed to be a distance matrix.
     Alternatively, if metric is a callable function, it is called on each
     pair of instances (rows) and the resulting value recorded. The callable
     should take two arrays from X as input and return a value indicating
     the distance between them. The default is "euclidean" which is
     interpreted as squared euclidean distance.
 init : string or numpy array, optional (default: "random")
     Initialization of embedding. Possible options are 'random', 'pca',
     and a numpy array of shape (n_samples, n_components).
     PCA initialization cannot be used with precomputed distances and is
     usually more globally stable than random initialization.
 verbose : int, optional (default: 0)
     Verbosity level.
 random_state : int, RandomState instance or None, optional (default: None)
     If int, random state is the seed used by the random number generator;
     If RandomState instance, random_state is the random number generator;
     If None, the random number generator is the RandomState instance used
     by `np.random`. Note that different initializations might result in
     different local minima of the cost function.
method : string (default: 'barnes_hut')
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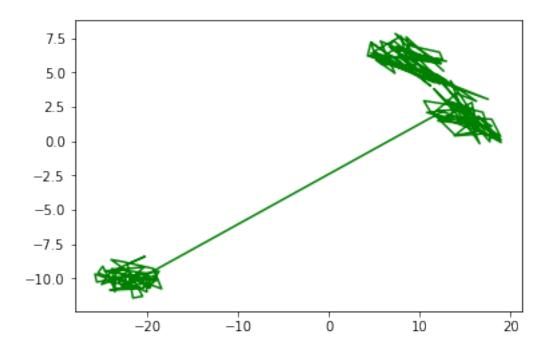
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By default the gradient calculation algorithm uses Barnes-Hut
       approximation running in O(NlogN) time. method='exact'
      will run on the slower, but exact, algorithm in O(N^2) time. The
      exact algorithm should be used when nearest-neighbor errors need
      to be better than 3%. However, the exact method cannot scale to
      millions of examples.
       .. versionadded:: 0.17
          Approximate optimization *method* via the Barnes-Hut.
  angle : float (default: 0.5)
      Only used if method='barnes_hut'
      This is the trade-off between speed and accuracy for Barnes-Hut T-SNE.
       'angle' is the angular size (referred to as theta in [3]) of a distant
      node as measured from a point. If this size is below 'angle' then it is
      used as a summary node of all points contained within it.
      This method is not very sensitive to changes in this parameter
       in the range of 0.2 - 0.8. Angle less than 0.2 has quickly increasing
       computation time and angle greater 0.8 has quickly increasing error.
  Attributes
  embedding_ : array-like, shape (n_samples, n_components)
      Stores the embedding vectors.
  kl_divergence_ : float
      Kullback-Leibler divergence after optimization.
  n_iter_ : int
      Number of iterations run.
 Examples
  -----
| >>> import numpy as np
| >>> from sklearn.manifold import TSNE
>>> X = np.array([[0, 0, 0], [0, 1, 1], [1, 0, 1], [1, 1, 1]])
  >>> X_embedded = TSNE(n_components=2).fit_transform(X)
  >>> X_embedded.shape
  (4, 2)
  References
  _____
  [1] van der Maaten, L.J.P.; Hinton, G.E. Visualizing High-Dimensional Data
      Using t-SNE. Journal of Machine Learning Research 9:2579-2605, 2008.
   [2] van der Maaten, L.J.P. t-Distributed Stochastic Neighbor Embedding
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http://homepage.tudelft.nl/19j49/t-SNE.html
[3] L.J.P. van der Maaten. Accelerating t-SNE using Tree-Based Algorithms.
    Journal of Machine Learning Research 15(Oct):3221-3245, 2014.
    http://lvdmaaten.github.io/publications/papers/JMLR_2014.pdf
Method resolution order:
    TSNF.
    sklearn.base.BaseEstimator
    builtins.object
Methods defined here:
__init__(self, n_components=2, perplexity=30.0, early_exaggeration=12.0, learning_rate=200
    Initialize self. See help(type(self)) for accurate signature.
fit(self, X, y=None)
    Fit X into an embedded space.
    Parameters
    X : array, shape (n_samples, n_features) or (n_samples, n_samples)
        If the metric is 'precomputed' X must be a square distance
        matrix. Otherwise it contains a sample per row. If the method
        is 'exact', X may be a sparse matrix of type 'csr', 'csc'
        or 'coo'.
    y : Ignored.
fit_transform(self, X, y=None)
    Fit X into an embedded space and return that transformed
    output.
    Parameters
    X : array, shape (n_samples, n_features) or (n_samples, n_samples)
        If the metric is 'precomputed' X must be a square distance
        matrix. Otherwise it contains a sample per row.
    y : Ignored.
    Returns
    X_new : array, shape (n_samples, n_components)
        Embedding of the training data in low-dimensional space.
Data descriptors defined here:
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n_iter_final
    DEPRECATED: Attribute n_iter_final was deprecated in version 0.19 and will be removed
Methods inherited from sklearn.base.BaseEstimator:
__getstate__(self)
__repr__(self)
    Return repr(self).
__setstate__(self, state)
get_params(self, deep=True)
    Get parameters for this estimator.
    Parameters
    _____
    deep : boolean, optional
        If True, will return the parameters for this estimator and
        contained subobjects that are estimators.
    Returns
    params: mapping of string to any
        Parameter names mapped to their values.
set_params(self, **params)
    Set the parameters of this estimator.
    The method works on simple estimators as well as on nested objects
    (such as pipelines). The latter have parameters of the form
    ``<component>__<parameter>`` so that it's possible to update each
    component of a nested object.
    Returns
    ____
    self
Data descriptors inherited from sklearn.base.BaseEstimator:
__dict__
    dictionary for instance variables (if defined)
__weakref__
    list of weak references to the object (if defined)
```



In [26]: plt.plot(X_embedded[:,0], X_embedded[:,1] , 'g')
Out[26]: [<matplotlib.lines.Line2D at 0x166b2ec8438>]

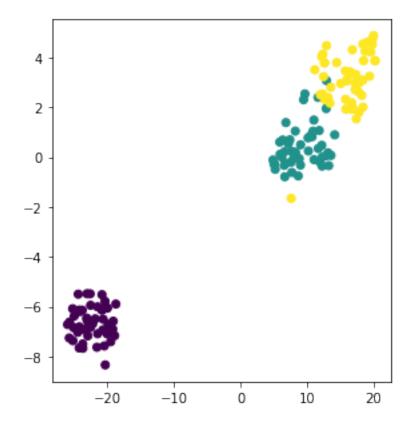


In [27]: X_embedded[:,0]

```
Out[27]: array([-22.794207 , -20.08789 , -20.097242 , -19.701225 , -22.88455
               -24.744394 , -20.368147 , -22.037226 , -18.913137 , -20.614525 ,
               -24.293297 , -21.25682 , -19.809494 , -18.74033 , -25.614143 ,
               -25.805782 , -24.8938
                                        , -22.835783 , -25.083088 , -23.868017 ,
               -23.621763 , -23.500349 , -20.3046
                                                    , -22.201345 , -21.636562 ,
               -20.552782 , -22.149515 , -23.21512 , -22.803593 , -20.464443 ,
               -20.413975 , -23.614662 , -24.944864 , -25.472944 , -20.614525 ,
               -21.31995 , -24.18251 , -20.614525 , -19.019522 , -22.424942 ,
               -22.401138 , -18.465916 , -19.361673 , -22.64674 , -24.02684
                           , -23.958145 , -19.88018
                                                    , -24.039722 , -21.682901 ,
               -19.7762
                             12.689735 , 10.7431965 , 17.558247 , 12.183967 ,
                 10.997775 ,
                15.744366 , 12.764938 , 18.91881 ,
                                                       12.04272 , 17.902039 ,
                             15.2617855,
                                                       13.524249 , 17.912811 ,
                 18.879566 ,
                                          16.575157 ,
                 11.977924 ,
                             15.714274 ,
                                          16.374666 ,
                                                       13.786665 ,
                                                                    17.256052 ,
                13.365234 ,
                                          11.523232 ,
                                                       13.732015 ,
                             15.473018 ,
                                                                   13.205722 ,
                 12.328116 ,
                             11.195414 ,
                                          10.424491 ,
                                                       14.284344 ,
                                                                    17.68944
                 17.696875 ,
                             17.868492 ,
                                          16.690151 ,
                                                       11.822143 ,
                                                                    16.219975 ,
                 14.020408 ,
                                          13.883671 ,
                                                       16.433762 ,
                             11.448563 ,
                                                                    17.363728,
                                                       18.84858 ,
                 16.92466
                             13.714064 ,
                                          16.635717 ,
                                                                    16.758083 ,
                 16.03245
                             16.098654 ,
                                          14.120992 ,
                                                       18.942297 ,
                                                                    16.424665 ,
                 7.2670817,
                             12.296143 ,
                                           6.0598154,
                                                        8.6788225,
                                                                     7.335865 ,
                 4.5885687,
                             17.507505 ,
                                           5.120078 ,
                                                        7.2430377,
                                                                     5.6418095,
                 9.241946 ,
                                           7.556667 , 12.470276 , 12.150231 ,
                             9.517724 ,
                             8.547122 ,
                                           4.583734 , 4.2241397, 11.350129 ,
                 8.5794525,
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6.7695093,
                             12.904532 ,
                                           4.4259048,
                                                       11.59525 ,
                                                                     7.096691,
                 5.6641927,
                             12.183431 , 12.591301 ,
                                                        8.064242 ,
                                                                     5.789908 ,
                              4.599717 ,
                 5.2223063,
                                           7.965872 ,
                                                       11.178687 ,
                                                                    10.021637,
                 4.973216 ,
                              7.92153 ,
                                           8.672089 ,
                                                       12.939072 ,
                                                                     7.6409345,
                 7.419214 ,
                              8.347614 , 12.29631 ,
                                                        6.5942883,
                                                                     7.10058
                 8.4041605,
                             11.124019 ,
                                           9.103306 ,
                                                       8.479842 ,
                                                                    12.588684],
              dtype=float32)
In [23]: X_embedded[:,1]
Out[23]: array([-231.1655 , -147.38359, -262.18234, -116.36655], dtype=float32)
In [38]: figure(figsize = (10,5))
         subplot(121)
        scatter(X_embedded[:,0], X_embedded[:,1], c = iris.target )
```

Out[38]: <matplotlib.collections.PathCollection at 0x166b326beb8>



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In [49]: Limts = [ [ x_min , x_max] , [y_min, y_max] ]
In [50]: Limts
Out [50]: [[-25.9487, 20.243372], [-8.339147, 4.883639]]
In [89]: def find_good_size(Limits, windowSize):
             x_min = Limits[0][0]
             x_max = Limits[0][1]
             y_min = Limits[1][0]
             y_{max} = Limits[1][1]
             from math import floor, ceil
             # Clean the matrix
             x_min = floor(x_min)
             x_max = ceil(x_max)
             y_min = floor(y_min)
             y_max = ceil(y_max)
             # Printing the cleaend up values.
             print(x_min,x_max,y_min, y_max)
             # Fitting the size to handle the windows
             a = (x_max - x_min) \% windowSize
             b = (y_max - y_min) % windowSize
             if ( (x_max + a) % windowSize == 0):
                 x_max = x_max + a
             else:
                 x_max = x_max + (windowSize - a)
             if ( (y_max + b) % windowSize == 0):
                 y_max = y_max + b
             else:
                 y_max = y_max + (windowSize - b)
             print("You Can use this matrix now.")
             print("X_min=",x_min)
             print("X_max=",x_max)
             print("Y_min=",y_min)
             print("Y_max=",y_max)
             print("And the Matrix Shape:", (x_max - x_min) , " * ", (y_max - y_min))
             return [[x_min,x_max],[y_min,y_max]]
In [90]: find_good_size(Limts,1)
-26 21 -9 5
You Can use this matrix now.
X_{min} = -26
```

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X_max=21
Y_{min} = -9
Y_max=5
And the Matrix Shape: 47 * 14
Out[90]: [[-26, 21], [-9, 5]]
In [66]: find_good_size(Limts,10)
-26 21 -9 5
You Can use this matrix now.
X_{min} = -26
X \text{ max} = 24
Y_{min} = -9
Y_max= 11
And the Matrix Shape: 50 * 20
Out[66]: [[-26, 24], [-9, 11]]
In [91]: def tell_windows(Limts, windowSize):
             g = find_good_size(Limts,windowSize)
             # Going Row Wise:
             count = 0
             for i in range(g[0][0],g[0][1],windowSize):
                 for j in range(g[1][0],g[1][1],windowSize):
                     count += 1
                     print("<Window:",count,">","X:[", i, ",", i +windowSize , "]" , "Y:[", j,
             print("Total Count:",count)
             ans = (g[0][1]-g[0][0])*(g[1][1]-g[1][0]) // (windowSize ** 2)
             print("Expected Count:",ans)
             print("OKAY:", count == ans )
In [93]: tell_windows([[0,3],[0,3]],1)
0 3 0 3
You Can use this matrix now.
X_min= 0
X_max=3
Y_min= 0
Y_max= 3
And the Matrix Shape: 3 * 3
<Window: 1 > X:[ 0 , 1 ] Y:[ 0 , 1 ]
<Window: 2 > X:[ 0 , 1 ] Y:[ 1 , 2 ]
\{\text{Window: 3 > X:[0,1] Y:[2,3]}
\{\text{Window: 4 > X:[1,2]Y:[0,1]}
<Window: 5 > X:[ 1 , 2 ] Y:[ 1 , 2 ]
<Window: 6 > X:[ 1 , 2 ] Y:[ 2 , 3 ]
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<Window: 7 > X:[2,3] Y:[0,1]
<Window: 8 > X:[ 2 , 3 ] Y:[ 1 , 2 ]
\{\text{Window: 9 > X:[2,3]Y:[2,3]}
Total Count: 9
Expected Count: 9
OKAY: True
In [94]: tell_windows([[0,3],[0,3]],3)
0 3 0 3
You Can use this matrix now.
X min= 0
X_{max}=3
Y_{min} = 0
Y_max=3
And the Matrix Shape: 3 * 3
<Window: 1 > X:[0,3] Y:[0,3]
Total Count: 1
Expected Count: 1
OKAY: True
In [95]: tell_windows([[0,3],[0,3]],5)
0 3 0 3
You Can use this matrix now.
X_min= 0
X_{max} = 5
Y_{min} = 0
Y_max= 5
And the Matrix Shape: 5 * 5
<Window: 1 > X:[0,5] Y:[0,5]
Total Count: 1
Expected Count: 1
OKAY: True
In [77]: Limts
Out[77]: [[-25.9487, 20.243372], [-8.339147, 4.883639]]
In [96]: tell_windows(Limts,3)
-26 21 -9 5
You Can use this matrix now.
X_{min} = -26
X_max= 22
Y_{min} = -9
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Y_{max} = 6
And the Matrix Shape: 48 * 15
\{\text{Window: 1 > X: [-26, -23] Y: [-9, -6]}
\forall X: [-26, -23] Y: [-6, -3]
\langle \text{Window}: 3 \rangle X: [-26, -23] Y: [-3, 0]
\forall \text{Window: 4 > X:[-26,-23] Y:[0,3]}
\langle \text{Window}: 5 \rangle X: [-26, -23] Y: [3, 6]
\forall \text{Window: } 6 > X:[-23, -20] Y:[-9, -6]
\forall X: [-23, -20] Y: [-6, -3]
\langle \text{Window}: 8 \rangle X: [-23, -20] Y: [-3, 0]
\forall \text{Window: } 9 > X:[-23, -20] Y:[0, 3]
\langle Window: 10 \rangle X: [-23, -20] Y: [3, 6]
\forall \text{Window: } 11 > X:[-20, -17] Y:[-9, -6]
<Window: 12 > X:[ -20 , -17 ] Y:[ -6 , -3 ]
\forall \text{Window: } 13 > X:[-20, -17] Y:[-3, 0]
\forall \text{Window: } 14 > X:[-20, -17] Y:[0, 3]
\forall X: [-20, -17] Y: [3, 6]
\forall \text{Window: } 16 > X:[-17, -14] Y:[-9, -6]
\langle \text{Window}: 17 > X: [-17, -14] Y: [-6, -3]
<Window: 18 > X:[ -17 , -14 ] Y:[ -3 , 0 ]
\langle Window: 19 \rangle X: [-17, -14] Y: [0, 3]
<Window: 20 > X:[ -17 , -14 ] Y:[ 3 , 6 ]
\forall X: [-14, -11] Y: [-9, -6]
\langle \text{Window}: 22 \rangle X: [-14, -11] Y: [-6, -3]
\langle \text{Window}: 23 \rangle X: [-14, -11] Y: [-3, 0]
\langle Window: 24 \rangle X: [-14, -11] Y: [0, 3]
\langle \text{Window}: 25 \rangle X: [-14, -11] Y: [3, 6]
<Window: 26 > X:[ -11 , -8 ] Y:[ -9 , -6 ]
\langle \text{Window}: 27 \rangle X: [-11, -8] Y: [-6, -3]
\forall X: [-11, -8] Y: [-3, 0]
\forall X: [-11, -8] Y: [0, 3]
<Window: 30 > X:[ -11 , -8 ] Y:[ 3 , 6 ]
\forall X: [-8, -5] Y: [-9, -6]
\forall X: [-8, -5] Y: [-6, -3]
\langle \text{Window}: 33 \rangle X: [-8, -5] Y: [-3, 0]
<Window: 34 > X:[ -8 , -5 ] Y:[ 0 , 3 ]
<Window: 35 > X:[ -8 , -5 ] Y:[ 3 , 6 ]
\forall Window: 36 > X:[-5, -2] Y:[-9, -6]
\langle \text{Window}: 37 \rangle X: [-5, -2] Y: [-6, -3]
\langle \text{Window}: 38 \rangle X: [-5, -2] Y: [-3, 0]
\forall X: [-5, -2] Y: [0, 3]
\{\text{Window}: 40 > X: [-5, -2] Y: [3, 6]
\{\text{Window: } 41 > X:[-2,1] \ Y:[-9,-6]
\langle \text{Window}: 42 \rangle X: [-2, 1] Y: [-6, -3]
<Window: 43 > X:[-2, 1] Y:[-3, 0]
<Window: 44 > X:[-2, 1] Y:[0, 3]
<Window: 45 > X:[-2, 1] Y:[3, 6]
<Window: 46 > X:[ 1 , 4 ] Y:[ -9 , -6 ]
```

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\forall X:[1,4] Y:[-6,-3]
<Window: 48 > X:[1, 4] Y:[-3, 0]
<Window: 49 > X:[1, 4] Y:[0, 3]
<Window: 50 > X:[1, 4] Y:[3, 6]
\{Window: 51 > X:[4,7] Y:[-9,-6]
\forall \text{Window: } 52 > X:[4,7] Y:[-6,-3]
<Window: 53 > X:[4,7] Y:[-3,0]
<Window: 54 > X:[4,7] Y:[0,3]
<Window: 55 > X:[ 4 , 7 ] Y:[ 3 , 6 ]
<Window: 56 > X:[ 7 , 10 ] Y:[ -9 , -6 ]
\{Window: 57 > X:[7, 10] Y:[-6, -3]
<Window: 58 > X:[ 7 , 10 ] Y:[ -3 , 0 ]
<Window: 59 > X:[ 7 , 10 ] Y:[ 0 , 3 ]
<Window: 60 > X:[ 7 , 10 ] Y:[ 3 , 6 ]
<Window: 61 > X:[ 10 , 13 ] Y:[ -9 , -6 ]
<Window: 62 > X:[ 10 , 13 ] Y:[ -6 , -3 ]
<Window: 63 > X:[ 10 , 13 ] Y:[ -3 , 0 ]
<Window: 64 > X:[ 10 , 13 ] Y:[ 0 , 3 ]
<Window: 65 > X:[ 10 , 13 ] Y:[ 3 , 6 ]
<Window: 66 > X:[ 13 , 16 ] Y:[ -9 , -6 ]
<Window: 67 > X:[ 13 , 16 ] Y:[ -6 , -3 ]
<Window: 68 > X:[ 13 , 16 ] Y:[ -3 , 0 ]
<Window: 69 > X:[ 13 , 16 ] Y:[ 0 , 3 ]
<Window: 70 > X:[ 13 , 16 ] Y:[ 3 , 6 ]
<Window: 71 > X:[ 16 , 19 ] Y:[ -9 , -6 ]
<Window: 72 > X:[ 16 , 19 ] Y:[ -6 , -3 ]
\langle Window: 73 \rangle X: [16, 19] Y: [-3, 0]
<Window: 74 > X:[ 16 , 19 ] Y:[ 0 , 3 ]
<Window: 75 > X:[ 16 , 19 ] Y:[ 3 , 6 ]
<Window: 76 > X:[ 19 , 22 ] Y:[ -9 , -6 ]
\langle \text{Window}: 77 \rangle X: [19, 22] Y: [-6, -3]
\langle \text{Window: 78} \rangle \text{ X:[ 19, 22] Y:[ -3, 0]}
<Window: 79 > X:[ 19 , 22 ] Y:[ 0 , 3 ]
<Window: 80 > X:[ 19 , 22 ] Y:[ 3 , 6 ]
Total Count: 80
Expected Count: 80
OKAY: True
In [103]: # Okay So now We have a function which finds the windows we just now need to calcula
          def calEntropy(window,label):
              'Takes: [x_min, x_max],[y_min, y_max]'
              'returns entropy of the window'
              x_min, x_max , y_min, y_max = window
              # Set up entropy to be zero
              en = 0
              from math import log
              c = [0,0,0]
```

```
# Calculate the number of samples in this window.
              \# X_{embedded} stores the data.
              for i in range(150):
                  cx = X_embedded[i][0]
                  cy = X embedded[i][1]
                  if x_min <= cx <=x_max and y_min <= cy <= y_max:</pre>
                      print("Found a sample of class:",label[i])
                       c[label[i]] += 1
              t = c[0] + c[1] + c[2]
              for i in c:
                  if i!= 0:
                       en += - (i/t * log(i/t))
              print("Found Entropy:",en)
              return en
In [109]: def tell_windows(Limts, windowSize, target):
              g = find_good_size(Limts, windowSize)
              # Going Row Wise:
              total_ent = 0
              count = 0
              for i in range(g[0][0],g[0][1],windowSize):
                  for j in range(g[1][0],g[1][1],windowSize):
                       count += 1
                       print("<Window:",count,">","X:[", i, ",", i +windowSize , "]" , "Y:[", j
                       total_ent += calEntropy([i,windowSize+i, j, windowSize+j], target)
              print("Total Count:",count)
              ans = (g[0][1]-g[0][0])*(g[1][1]-g[1][0]) // (windowSize ** 2)
              print("Expected Count:",ans)
              print("OKAY:", count == ans )
              print("----Done----",total_ent)
              return total_ent
In [110]: tell_windows(Limts,3, add_noise(0))
Plotting the data with Noise => 0 %
Done!
-26 21 -9 5
You Can use this matrix now.
X_{min} = -26
X \max = 22
Y min= -9
Y_max=6
And the Matrix Shape: 48 * 15
\langle \text{Window}: 1 > X: [-26, -23] Y: [-9, -6]
Found a sample of class: 0
```

```
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 2 \rangle X: [-26, -23] Y: [-6, -3]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
<Window: 3 > X:[ -26 , -23 ] Y:[ -3 , 0 ]
Found Entropy: 0
\{\text{Window: 4 > X:[-26,-23] Y:[0,3]}
Found Entropy: 0
<Window: 5 > X:[ -26 , -23 ] Y:[ 3 , 6 ]
Found Entropy: 0
\{\text{Window: 6} > \text{X:[-23,-20]} \text{Y:[-9,-6]}
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window: 7 > X:[-23,-20] Y:[-6,-3]}
Found a sample of class: 0
```

```
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window: 8 > X:[-23,-20] Y:[-3,0]}
Found Entropy: 0
\langle \text{Window}: 9 \rangle X: [-23, -20] Y: [0, 3]
Found Entropy: 0
\{\text{Window: } 10 > \text{X:} [-23, -20] \text{ Y:} [3, 6]
Found Entropy: 0
\{Window: 11 > X:[ -20 , -17 ] Y:[ -9 , -6 ]
Found a sample of class: 0
Found Entropy: 0.0
\{\text{Window: } 12 > \text{X:} [-20, -17] \text{ Y:} [-6, -3] \}
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window: } 13 > \text{X:[} -20 , -17 ] \text{ Y:[} -3 , 0 ]
Found Entropy: 0
<Window: 14 > X:[ -20 , -17 ] Y:[ 0 , 3 ]
Found Entropy: 0
\langle \text{Window}: 15 \rangle X: [-20, -17] Y: [3, 6]
Found Entropy: 0
\langle \text{Window}: 16 \rangle X: [-17, -14] Y: [-9, -6]
Found Entropy: 0
\langle \text{Window}: 17 > X:[-17, -14] Y:[-6, -3]
Found Entropy: 0
<Window: 18 > X:[ -17 , -14 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 19 > X:[ -17 , -14 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 20 > X:[ -17 , -14 ] Y:[ 3 , 6 ]
Found Entropy: 0
\langle \text{Window}: 21 \rangle X: [-14, -11] Y: [-9, -6]
Found Entropy: 0
\langle \text{Window: } 22 \rangle \text{ X: [ } -14 \text{ , } -11 \text{ ] } \text{ Y: [ } -6 \text{ , } -3 \text{ ]}
Found Entropy: 0
<Window: 23 > X: [ -14 , -11 ] Y: [ -3 , 0 ]
Found Entropy: 0
<Window: 24 > X:[ -14 , -11 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 25 > X:[ -14 , -11 ] Y:[ 3 , 6 ]
Found Entropy: 0
\langle \text{Window: 26} \rangle \text{ X: [-11, -8] Y: [-9, -6]}
```

```
Found Entropy: 0
<Window: 27 > X:[-11, -8] Y:[-6, -3]
Found Entropy: 0
<Window: 28 > X:[-11, -8] Y:[-3, 0]
Found Entropy: 0
<Window: 29 > X:[ -11 , -8 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 30 > X:[ -11 , -8 ] Y:[ 3 , 6 ]
Found Entropy: 0
\langle \text{Window}: 31 > X:[-8, -5] Y:[-9, -6]
Found Entropy: 0
\langle \text{Window}: 32 \rangle X: [-8, -5] Y: [-6, -3]
Found Entropy: 0
<Window: 33 > X:[ -8 , -5 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 34 > X:[ -8 , -5 ] Y:[ 0 , 3 ]
Found Entropy: 0
\langle Window: 35 \rangle X: [-8, -5] Y: [3, 6]
Found Entropy: 0
<Window: 36 > X:[-5, -2] Y:[-9, -6]
Found Entropy: 0
\langle \text{Window}: 37 \rangle X: [-5, -2] Y: [-6, -3]
Found Entropy: 0
\langle \text{Window}: 38 > X: [-5, -2] Y: [-3, 0]
Found Entropy: 0
\langle \text{Window}: 39 \rangle X: [-5, -2] Y: [0, 3]
Found Entropy: 0
<Window: 40 > X:[ -5 , -2 ] Y:[ 3 , 6 ]
Found Entropy: 0
\{\text{Window: } 41 > X: [-2, 1] Y: [-9, -6]
Found Entropy: 0
\{\text{Window: } 42 > X:[-2,1] \ Y:[-6,-3]
Found Entropy: 0
<Window: 43 > X:[-2, 1] Y:[-3, 0]
Found Entropy: 0
<Window: 44 > X:[ -2 , 1 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 45 > X:[-2, 1] Y:[3, 6]
Found Entropy: 0
<Window: 46 > X:[1, 4] Y:[-9, -6]
Found Entropy: 0
<Window: 47 > X:[ 1 , 4 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 48 > X:[1, 4] Y:[-3, 0]
Found Entropy: 0
<Window: 49 > X:[1, 4] Y:[0, 3]
Found Entropy: 0
<Window: 50 > X:[ 1 , 4 ] Y:[ 3 , 6 ]
```

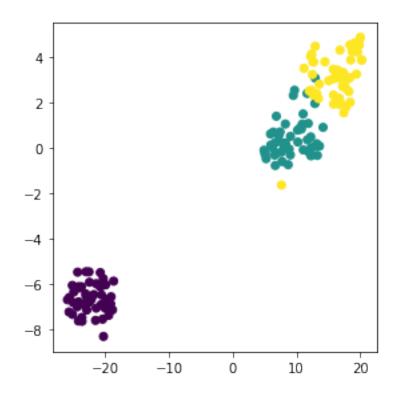
```
Found Entropy: 0
\{Window: 51 > X:[4,7] Y:[-9,-6]
Found Entropy: 0
\{\text{Window}: 52 > X: [4, 7] Y: [-6, -3]
Found Entropy: 0
\{\text{Window: 53} > X: [4, 7] Y: [-3, 0]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 54 > X:[ 4 , 7 ] Y:[ 0 , 3 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 55 > X:[ 4 , 7 ] Y:[ 3 , 6 ]
Found Entropy: 0
<Window: 56 > X:[ 7 , 10 ] Y:[ -9 , -6 ]
Found Entropy: 0
<Window: 57 > X:[7, 10] Y:[-6, -3]
Found Entropy: 0
<Window: 58 > X:[ 7 , 10 ] Y:[ -3 , 0 ]
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.410116318288409
<Window: 59 > X:[ 7 , 10 ] Y:[ 0 , 3 ]
Found a sample of class: 1
```

```
Found Entropy: 0.0
<Window: 60 > X:[ 7 , 10 ] Y:[ 3 , 6 ]
Found Entropy: 0
\{\text{Window: } 61 > X: [10, 13] Y: [-9, -6]
Found Entropy: 0
\{\text{Window: } 62 > X: [10, 13] Y: [-6, -3]
Found Entropy: 0
<Window: 63 > X:[ 10 , 13 ] Y:[ -3 , 0 ]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 64 > X:[10, 13] Y:[0, 3]
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.48257756517701206
<Window: 65 > X:[ 10 , 13 ] Y:[ 3 , 6 ]
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.37677016125643675
<Window: 66 > X:[13, 16] Y:[-9, -6]
Found Entropy: 0
<Window: 67 > X:[ 13 , 16 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 68 > X:[ 13 , 16 ] Y:[ -3 , 0 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 69 > X:[ 13 , 16 ] Y:[ 0 , 3 ]
```

```
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6365141682948128
\{\text{Window}: 70 > X: [13, 16] Y: [3, 6]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
\langle \text{Window}: 71 \rangle X: [16, 19] Y: [-9, -6]
Found Entropy: 0
<Window: 72 > X:[ 16 , 19 ] Y:[ -6 , -3 ]
Found Entropy: 0
\langle \text{Window}: 73 \rangle X: [16, 19] Y: [-3, 0]
Found Entropy: 0
<Window: 74 > X:[ 16 , 19 ] Y:[ 0 , 3 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 75 > X:[ 16 , 19 ] Y:[ 3 , 6 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 76 > X:[ 19 , 22 ] Y:[ -9 , -6 ]
Found Entropy: 0
```

```
<Window: 77 > X:[ 19 , 22 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 78 > X:[ 19 , 22 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 79 > X:[19, 22] Y:[0, 3]
Found Entropy: 0
<Window: 80 > X:[ 19 , 22 ] Y:[ 3 , 6 ]
Found a sample of class: 2
Found Entropy: 0.0
Total Count: 80
Expected Count: 80
OKAY: True
----Done--- 1.9059782130166705
```

Out[110]: 1.9059782130166705



```
In [113]: def add_noise(percentage):
              'Adds the given percentage of noise to the iris data and returns the new data'
              # Original
              target = [0 for i in range(50)] + [ 1 for i in range(50)] + [ 2 for i in range(50)]
              # 0 - 50 : class 0
              # 50 - 100 : class 1
              # 100 - 150 : class 2
              # We will change the labels in a class label randomly
              import random
              # Offset for percentage => (window size)* precentage
              offset = 50 * percentage // 100
              for i in range(0, 0 + offset ):
                  target[i] = random.choice([1,2])
              for i in range(50, 50 + offset):
                  target[i] = random.choice([0,2])
              for i in range(100,100 + offset):
                  target[i] = random.choice([0,1])
              # Got the new labeled data
              # Now we can plot the tsne with this.
              #print("Plotting the data with Noise => ", percentage , " %")
              figure(figsize = (20,10))
              subplot (242)
              scatter(X_embedded[:,0], X_embedded[:,1], c = target)
              print("Done!")
              return target
In [115]: def main(windowSize, noise):
              return tell_windows(Limts, windowSize, add_noise(noise))
In [117]: xxxx = []
          уууу = []
          for i in range(0,100,10):
              xxxx.append(i)
              yyyy.append(main(3,i))
Done!
-26 21 -9 5
You Can use this matrix now.
X \min = -26
X \text{ max} = 22
Y_{min} = -9
Y_max=6
And the Matrix Shape: 48 * 15
\{\text{Window: 1 > X:[-26,-23] Y:[-9,-6]}
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
```

```
Found a sample of class: 0
Found Entropy: 0.0
\{\text{Window: 2 > X:[-26,-23] Y:[-6,-3]}
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 3 \rangle X: [-26, -23] Y: [-3, 0]
Found Entropy: 0
\{\text{Window: 4 > X:[-26,-23] Y:[0,3]}
Found Entropy: 0
\{\text{Window: 5} > \text{X:[-26,-23]} \text{ Y:[3,6]}
Found Entropy: 0
\{\text{Window: 6} > \text{X:[-23,-20]} \text{Y:[-9,-6]}
Found a sample of class: 0
Found Entropy: 0.0
<Window: 7 > X:[ -23 , -20 ] Y:[ -6 , -3 ]
```

```
Found a sample of class: 0
Found Entropy: 0.0
<Window: 8 > X:[ -23 , -20 ] Y:[ -3 , 0 ]
Found Entropy: 0
\langle \text{Window: 9} \rangle X: [-23, -20] Y: [0, 3]
Found Entropy: 0
\{\text{Window: } 10 > \text{X:} [-23, -20] \text{ Y:} [3, 6]
Found Entropy: 0
\{Window: 11 > X:[ -20 , -17 ] Y:[ -9 , -6 ]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 12 \rangle X: [-20, -17] Y: [-6, -3]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window: } 13 > \text{X:[} -20 , -17 ] \text{ Y:[} -3 , 0 ]
Found Entropy: 0
<Window: 14 > X:[ -20 , -17 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 15 > X:[ -20 , -17 ] Y:[ 3 , 6 ]
Found Entropy: 0
\langle \text{Window}: 16 \rangle X: [-17, -14] Y: [-9, -6]
Found Entropy: 0
\langle \text{Window}: 17 > X: [-17, -14] Y: [-6, -3]
Found Entropy: 0
<Window: 18 > X:[ -17 , -14 ] Y:[ -3 , 0 ]
Found Entropy: 0
\langle \text{Window}: 19 \rangle X: [-17, -14] Y: [0, 3]
Found Entropy: 0
\{\text{Window: 20} > \text{X:[-17,-14]} \text{ Y:[3,6]}
Found Entropy: 0
\{Window: 21 > X:[ -14 , -11 ] Y:[ -9 , -6 ]
Found Entropy: 0
\forall X: [-14, -11] \ Y: [-6, -3]
Found Entropy: 0
<Window: 23 > X: [ -14 , -11 ] Y: [ -3 , 0 ]
Found Entropy: 0
<Window: 24 > X:[-14, -11] Y:[0, 3]
Found Entropy: 0
\langle \text{Window: } 25 \rangle X:[-14, -11] Y:[3, 6]
Found Entropy: 0
```

```
\langle \text{Window}: 26 \rangle X: [-11, -8] Y: [-9, -6]
Found Entropy: 0
\{Window: 27 > X:[ -11 , -8 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 28 > X:[-11, -8] Y:[-3, 0]
Found Entropy: 0
<Window: 29 > X:[ -11 , -8 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 30 > X:[ -11 , -8 ] Y:[ 3 , 6 ]
Found Entropy: 0
\{Window: 31 > X:[-8, -5] Y:[-9, -6]
Found Entropy: 0
<Window: 32 > X:[ -8 , -5 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 33 > X:[ -8 , -5 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 34 > X:[-8, -5] Y:[0, 3]
Found Entropy: 0
<Window: 35 > X:[-8, -5] Y:[3, 6]
Found Entropy: 0
\langle \text{Window}: 36 \rangle X: [-5, -2] Y: [-9, -6]
Found Entropy: 0
\langle \text{Window}: 37 \rangle X: [-5, -2] Y: [-6, -3]
Found Entropy: 0
\langle \text{Window}: 38 \rangle X: [-5, -2] Y: [-3, 0]
Found Entropy: 0
<Window: 39 > X:[ -5 , -2 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 40 > X:[ -5 , -2 ] Y:[ 3 , 6 ]
Found Entropy: 0
\{\text{Window: } 41 > X:[-2,1] \ Y:[-9,-6]
Found Entropy: 0
\{\text{Window: } 42 > X:[-2,1] Y:[-6,-3]
Found Entropy: 0
\{\text{Window: } 43 > X: [-2, 1] Y: [-3, 0]
Found Entropy: 0
\{\text{Window: } 44 > X: [-2, 1] Y: [0, 3]
Found Entropy: 0
\{\text{Window: } 45 > X: [-2, 1] Y: [3, 6]
Found Entropy: 0
<Window: 46 > X:[1, 4] Y:[-9, -6]
Found Entropy: 0
<Window: 47 > X:[1, 4] Y:[-6, -3]
Found Entropy: 0
<Window: 48 > X:[1,4] Y:[-3,0]
Found Entropy: 0
<Window: 49 > X:[1,4] Y:[0,3]
Found Entropy: 0
```

```
<Window: 50 > X:[ 1 , 4 ] Y:[ 3 , 6 ]
Found Entropy: 0
\{Window: 51 > X:[4,7] Y:[-9,-6]
Found Entropy: 0
\{Window: 52 > X:[4,7] Y:[-6,-3]
Found Entropy: 0
\langle \text{Window}: 53 \rangle X: [4, 7] Y: [-3, 0]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 54 > X:[4, 7] Y:[0, 3]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 55 > X:[4,7] Y:[3,6]
Found Entropy: 0
\{\text{Window: } 56 > X:[7,10] Y:[-9,-6]
Found Entropy: 0
<Window: 57 > X:[7, 10] Y:[-6, -3]
Found Entropy: 0
<Window: 58 > X:[ 7 , 10 ] Y:[ -3 , 0 ]
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.410116318288409
<Window: 59 > X:[ 7 , 10 ] Y:[ 0 , 3 ]
Found a sample of class: 1
```

```
Found a sample of class: 1
Found Entropy: 0.0
<Window: 60 > X:[ 7 , 10 ] Y:[ 3 , 6 ]
Found Entropy: 0
\{Window: 61 > X: [ 10 , 13 ] Y: [ -9 , -6 ]
Found Entropy: 0
\{\text{Window: } 62 > X: [10, 13] Y: [-6, -3]
Found Entropy: 0
<Window: 63 > X:[ 10 , 13 ] Y:[ -3 , 0 ]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 64 > X:[ 10 , 13 ] Y:[ 0 , 3 ]
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.48257756517701206
<Window: 65 > X:[ 10 , 13 ] Y:[ 3 , 6 ]
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.37677016125643675
<Window: 66 > X:[ 13 , 16 ] Y:[ -9 , -6 ]
Found Entropy: 0
<Window: 67 > X:[ 13 , 16 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 68 > X:[ 13 , 16 ] Y:[ -3 , 0 ]
Found a sample of class: 1
Found Entropy: 0.0
```

```
<Window: 69 > X:[ 13 , 16 ] Y:[ 0 , 3 ]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6365141682948128
<Window: 70 > X:[ 13 , 16 ] Y:[ 3 , 6 ]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
\langle \text{Window}: 71 \rangle X: [16, 19] Y: [-9, -6]
Found Entropy: 0
\{\text{Window: 72} > \text{X:[16,19]} \text{Y:[-6,-3]}
Found Entropy: 0
<Window: 73 > X:[ 16 , 19 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 74 > X:[ 16 , 19 ] Y:[ 0 , 3 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 75 > X:[ 16 , 19 ] Y:[ 3 , 6 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 76 > X:[ 19 , 22 ] Y:[ -9 , -6 ]
```

```
Found Entropy: 0
<Window: 77 > X:[ 19 , 22 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 78 > X:[19, 22] Y:[-3, 0]
Found Entropy: 0
<Window: 79 > X:[ 19 , 22 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 80 > X:[ 19 , 22 ] Y:[ 3 , 6 ]
Found a sample of class: 2
Found Entropy: 0.0
Total Count: 80
Expected Count: 80
OKAY: True
----Done---- 1.9059782130166705
Done!
-26 21 -9 5
You Can use this matrix now.
X_{min} = -26
X_max = 22
Y_min = -9
Y \max = 6
And the Matrix Shape: 48 * 15
\{Window: 1 > X:[ -26 , -23 ] Y:[ -9 , -6 ]
Found a sample of class: 2
Found a sample of class: 0
```

```
Found a sample of class: 0
Found Entropy: 0.2145591551764051
\langle \text{Window}: 2 \rangle X: [-26, -23] Y: [-6, -3]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\{\text{Window: 3 > X:[-26,-23] Y:[-3,0]}
Found Entropy: 0
\{\text{Window: 4 > X:[-26,-23] Y:[0,3]}
Found Entropy: 0
\{\text{Window: 5} > X: [-26, -23] Y: [3, 6]
Found Entropy: 0
\{Window: 6 > X:[ -23 , -20 ] Y:[ -9 , -6 ]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 0.336495757583516
\{Window: 7 > X:[ -23 , -20 ] Y:[ -6 , -3 ]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.5623351446188083
<Window: 8 > X:[ -23 , -20 ] Y:[ -3 , 0 ]
Found Entropy: 0
\langle Window: 9 \rangle X: [-23, -20] Y: [0, 3]
Found Entropy: 0
<Window: 10 > X:[ -23 , -20 ] Y:[ 3 , 6 ]
Found Entropy: 0
\{\text{Window: } 11 > \text{X:} [-20, -17] \text{ Y:} [-9, -6] \}
Found a sample of class: 1
Found a sample of class: 0
```

```
Found a sample of class: 0
Found Entropy: 0.45056120886630463
\forall x = 12 > x : [ -20 , -17 ] Y : [ -6 , -3 ]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 13 \rangle X: [-20, -17] Y: [-3, 0]
Found Entropy: 0
<Window: 14 > X:[ -20 , -17 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 15 > X:[ -20 , -17 ] Y:[ 3 , 6 ]
Found Entropy: 0
<Window: 16 > X:[ -17 , -14 ] Y:[ -9 , -6 ]
Found Entropy: 0
\langle \text{Window}: 17 > X: [-17, -14] Y: [-6, -3]
Found Entropy: 0
<Window: 18 > X:[ -17 , -14 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 19 > X:[ -17 , -14 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 20 > X:[ -17 , -14 ] Y:[ 3 , 6 ]
Found Entropy: 0
\langle \text{Window}: 21 \rangle X: [-14, -11] Y: [-9, -6]
Found Entropy: 0
\langle \text{Window}: 22 \rangle X: [-14, -11] Y: [-6, -3]
Found Entropy: 0
<Window: 23 > X:[ -14 , -11 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 24 > X:[ -14 , -11 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 25 > X:[ -14 , -11 ] Y:[ 3 , 6 ]
Found Entropy: 0
<Window: 26 > X:[ -11 , -8 ] Y:[ -9 , -6 ]
Found Entropy: 0
\{Window: 27 > X:[ -11 , -8 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 28 > X:[-11, -8] Y:[-3, 0]
Found Entropy: 0
<Window: 29 > X:[-11, -8] Y:[0, 3]
Found Entropy: 0
<Window: 30 > X:[ -11 , -8 ] Y:[ 3 , 6 ]
Found Entropy: 0
\langle \text{Window}: 31 \rangle X: [-8, -5] Y: [-9, -6]
Found Entropy: 0
\langle \text{Window}: 32 \rangle X: [-8, -5] Y: [-6, -3]
Found Entropy: 0
```

```
<Window: 33 > X:[ -8 , -5 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 34 > X:[-8, -5] Y:[0, 3]
Found Entropy: 0
<Window: 35 > X:[ -8 , -5 ] Y:[ 3 , 6 ]
Found Entropy: 0
\{Window: 36 \} X: [ -5 , -2 ] Y: [ -9 , -6 ]
Found Entropy: 0
\{Window: 37 > X: [-5, -2] Y: [-6, -3] <math>\}
Found Entropy: 0
\{\text{Window}: 38 > X: [-5, -2] Y: [-3, 0]
Found Entropy: 0
<Window: 39 > X:[ -5 , -2 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 40 > X:[-5, -2] Y:[3, 6]
Found Entropy: 0
<Window: 41 > X:[-2, 1] Y:[-9, -6]
Found Entropy: 0
<Window: 42 > X:[-2, 1] Y:[-6, -3]
Found Entropy: 0
\langle \text{Window}: 43 \rangle X: [-2, 1] Y: [-3, 0]
Found Entropy: 0
<Window: 44 > X:[ -2 , 1 ] Y:[ 0 , 3 ]
Found Entropy: 0
\{\text{Window: } 45 > X: [-2, 1] Y: [3, 6]
Found Entropy: 0
<Window: 46 > X:[ 1 , 4 ] Y:[ -9 , -6 ]
Found Entropy: 0
<Window: 47 > X:[1, 4] Y:[-6, -3]
Found Entropy: 0
<Window: 48 > X:[1, 4] Y:[-3, 0]
Found Entropy: 0
<Window: 49 > X:[1, 4] Y:[0, 3]
Found Entropy: 0
<Window: 50 > X:[1, 4] Y:[3, 6]
Found Entropy: 0
<Window: 51 > X:[ 4 , 7 ] Y:[ -9 , -6 ]
Found Entropy: 0
\{\text{Window}: 52 > X: [4, 7] Y: [-6, -3]
Found Entropy: 0
<Window: 53 > X:[ 4 , 7 ] Y:[ -3 , 0 ]
Found a sample of class: 0
Found a sample of class: 1
```

```
Found Entropy: 0.410116318288409
<Window: 54 > X:[ 4 , 7 ] Y:[ 0 , 3 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 55 > X:[4,7] Y:[3,6]
Found Entropy: 0
<Window: 56 > X:[ 7 , 10 ] Y:[ -9 , -6 ]
Found Entropy: 0
<Window: 57 > X:[ 7 , 10 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 58 > X:[ 7 , 10 ] Y:[ -3 , 0 ]
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.410116318288409
<Window: 59 > X:[ 7 , 10 ] Y:[ 0 , 3 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 60 > X:[ 7 , 10 ] Y:[ 3 , 6 ]
Found Entropy: 0
<Window: 61 > X:[ 10 , 13 ] Y:[ -9 , -6 ]
Found Entropy: 0
<Window: 62 > X:[ 10 , 13 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 63 > X:[ 10 , 13 ] Y:[ -3 , 0 ]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 64 > X:[ 10 , 13 ] Y:[ 0 , 3 ]
```

```
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.7774621319109287
<Window: 65 > X:[ 10 , 13 ] Y:[ 3 , 6 ]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.5623351446188083
<Window: 66 > X:[ 13 , 16 ] Y:[ -9 , -6 ]
Found Entropy: 0
<Window: 67 > X:[ 13 , 16 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 68 > X:[ 13 , 16 ] Y:[ -3 , 0 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 69 > X:[ 13 , 16 ] Y:[ 0 , 3 ]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.5297061990576545
<Window: 70 > X:[ 13 , 16 ] Y:[ 3 , 6 ]
Found a sample of class: 0
Found a sample of class: 2
```

```
Found a sample of class: 2
Found Entropy: 0.6365141682948128
\langle \text{Window}: 71 \rangle X: [16, 19] Y: [-9, -6]
Found Entropy: 0
\{\text{Window: 72} > \text{X:[16,19]} \text{Y:[-6,-3]}
Found Entropy: 0
<Window: 73 > X:[ 16 , 19 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 74 > X:[ 16 , 19 ] Y:[ 0 , 3 ]
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.30463609734923813
<Window: 75 > X:[ 16 , 19 ] Y:[ 3 , 6 ]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.639031859650177
\{\text{Window: 76} > \text{X:[19,22]} \text{Y:[-9,-6]}
Found Entropy: 0
\langle \text{Window}: 77 \rangle X: [19, 22] Y: [-6, -3]
Found Entropy: 0
\{\text{Window: 78} > \text{X:[19,22]} \text{Y:[-3,0]}
Found Entropy: 0
<Window: 79 > X:[ 19 , 22 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 80 > X:[ 19 , 22 ] Y:[ 3 , 6 ]
Found a sample of class: 2
```

```
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
Total Count: 80
Expected Count: 80
OKAY: True
----Done--- 5.833869503703472
Done!
-26 21 -9 5
You Can use this matrix now.
X \min = -26
X_max = 22
Y_{min} = -9
Y_max=6
And the Matrix Shape: 48 * 15
\{\text{Window: 1 > X:[-26,-23] Y:[-9,-6]}
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 0.34883209584303193
\langle \text{Window}: 2 \rangle X: [-26, -23] Y: [-6, -3]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
<Window: 3 > X:[ -26 , -23 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 4 > X:[ -26 , -23 ] Y:[ 0 , 3 ]
Found Entropy: 0
\{\text{Window: 5 > X:[-26,-23] Y:[3,6]}
Found Entropy: 0
\{Window: 6 > X:[ -23 , -20 ] Y:[ -9 , -6 ]
Found a sample of class: 2
```

```
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 0.708018976056273
\{Window: 7 > X:[ -23 , -20 ] Y:[ -6 , -3 ]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.5623351446188083
<Window: 8 > X:[ -23 , -20 ] Y:[ -3 , 0 ]
Found Entropy: 0
\langle \text{Window: 9} \rangle X: [-23, -20] Y: [0, 3]
Found Entropy: 0
<Window: 10 > X:[ -23 , -20 ] Y:[ 3 , 6 ]
Found Entropy: 0
\{\text{Window: } 11 > X:[-20, -17] \ Y:[-9, -6] \}
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 0.6365141682948128
\langle \text{Window}: 12 \rangle X: [-20, -17] Y: [-6, -3]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 13 > X:[ -20 , -17 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 14 > X:[ -20 , -17 ] Y:[ 0 , 3 ]
Found Entropy: 0
\langle \text{Window: } 15 \rangle X:[-20, -17] Y:[3, 6]
Found Entropy: 0
```

```
<Window: 16 > X:[ -17 , -14 ] Y:[ -9 , -6 ]
Found Entropy: 0
\langle \text{Window}: 17 > X:[-17, -14] Y:[-6, -3]
Found Entropy: 0
<Window: 18 > X:[ -17 , -14 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 19 > X:[ -17 , -14 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 20 > X:[ -17 , -14 ] Y:[ 3 , 6 ]
Found Entropy: 0
\{Window: 21 > X:[ -14 , -11 ] Y:[ -9 , -6 ]
Found Entropy: 0
\langle \text{Window}: 22 \rangle X: [-14, -11] Y: [-6, -3]
Found Entropy: 0
<Window: 23 > X:[ -14 , -11 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 24 > X:[-14, -11] Y:[0, 3]
Found Entropy: 0
<Window: 25 > X:[-14, -11] Y:[3, 6]
Found Entropy: 0
\{Window: 26 \} X: [ -11 , -8 ] Y: [ -9 , -6 ]
Found Entropy: 0
\langle \text{Window: } 27 \rangle \text{ X: [ } -11 \text{ , } -8 \text{ ] } \text{ Y: [ } -6 \text{ , } -3 \text{ ]}
Found Entropy: 0
<Window: 28 > X:[ -11 , -8 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 29 > X:[ -11 , -8 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 30 > X:[ -11 , -8 ] Y:[ 3 , 6 ]
Found Entropy: 0
\langle \text{Window}: 31 \rangle X: [-8, -5] Y: [-9, -6]
Found Entropy: 0
\langle \text{Window}: 32 \rangle X: [-8, -5] Y: [-6, -3]
Found Entropy: 0
\langle \text{Window}: 33 \rangle X: [-8, -5] Y: [-3, 0]
Found Entropy: 0
<Window: 34 > X:[ -8 , -5 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 35 > X:[ -8 , -5 ] Y:[ 3 , 6 ]
Found Entropy: 0
\forall Window: 36 > X:[-5, -2] Y:[-9, -6]
Found Entropy: 0
\langle \text{Window}: 37 \rangle X: [-5, -2] Y: [-6, -3]
Found Entropy: 0
<Window: 38 > X:[ -5 , -2 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 39 > X:[ -5 , -2 ] Y:[ 0 , 3 ]
Found Entropy: 0
```

```
<Window: 40 > X:[ -5 , -2 ] Y:[ 3 , 6 ]
Found Entropy: 0
\{\text{Window: } 41 > X:[-2,1] \ Y:[-9,-6]
Found Entropy: 0
\langle \text{Window}: 42 \rangle X: [-2, 1] Y: [-6, -3]
Found Entropy: 0
\{\text{Window: } 43 > X: [-2, 1] Y: [-3, 0]
Found Entropy: 0
\{\text{Window: } 44 > X: [-2, 1] Y: [0, 3]
Found Entropy: 0
<Window: 45 > X:[-2, 1] Y:[3, 6]
Found Entropy: 0
<Window: 46 > X:[1, 4] Y:[-9, -6]
Found Entropy: 0
<Window: 47 > X:[ 1 , 4 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 48 > X:[1, 4] Y:[-3, 0]
Found Entropy: 0
<Window: 49 > X:[1, 4] Y:[0, 3]
Found Entropy: 0
<Window: 50 > X:[ 1 , 4 ] Y:[ 3 , 6 ]
Found Entropy: 0
<Window: 51 > X:[ 4 , 7 ] Y:[ -9 , -6 ]
Found Entropy: 0
\{Window: 52 > X:[4,7] Y:[-6,-3]
Found Entropy: 0
<Window: 53 > X:[4,7] Y:[-3,0]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.9556998911125343
<Window: 54 > X:[4,7] Y:[0,3]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 55 > X:[4,7] Y:[3,6]
Found Entropy: 0
<Window: 56 > X:[ 7 , 10 ] Y:[ -9 , -6 ]
Found Entropy: 0
<Window: 57 > X:[ 7 , 10 ] Y:[ -6 , -3 ]
```

```
Found Entropy: 0
<Window: 58 > X:[ 7 , 10 ] Y:[ -3 , 0 ]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 0.7963116401738131
\{\text{Window}: 59 > X: [7, 10] Y: [0, 3]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 60 > X:[ 7 , 10 ] Y:[ 3 , 6 ]
Found Entropy: 0
<Window: 61 > X:[ 10 , 13 ] Y:[ -9 , -6 ]
Found Entropy: 0
\{\text{Window: } 62 > X: [10, 13] Y: [-6, -3]
Found Entropy: 0
\langle Window: 63 \rangle X: [10, 13] Y: [-3, 0]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 64 > X:[10, 13] Y:[0, 3]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
```

```
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.6853142072764582
<Window: 65 > X:[ 10 , 13 ] Y:[ 3 , 6 ]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.7356219397587946
<Window: 66 > X:[ 13 , 16 ] Y:[ -9 , -6 ]
Found Entropy: 0
<Window: 67 > X:[ 13 , 16 ] Y:[ -6 , -3 ]
Found Entropy: 0
\langle Window: 68 \rangle X: [13, 16] Y: [-3, 0]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 69 > X:[ 13 , 16 ] Y:[ 0 , 3 ]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.5297061990576545
<Window: 70 > X:[ 13 , 16 ] Y:[ 3 , 6 ]
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.6365141682948128
\langle \text{Window}: 71 \rangle X: [16, 19] Y: [-9, -6]
Found Entropy: 0
\langle \text{Window}: 72 \rangle X: [16, 19] Y: [-6, -3]
Found Entropy: 0
<Window: 73 > X:[ 16 , 19 ] Y:[ -3 , 0 ]
Found Entropy: 0
\forall \text{Window: } 74 > X:[16, 19] Y:[0, 3]
Found a sample of class: 1
Found a sample of class: 2
```

```
Found a sample of class: 2
Found Entropy: 0.30463609734923813
<Window: 75 > X:[ 16 , 19 ] Y:[ 3 , 6 ]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.6108643020548935
<Window: 76 > X:[ 19 , 22 ] Y:[ -9 , -6 ]
Found Entropy: 0
\langle \text{Window}: 77 \rangle X: [19, 22] Y: [-6, -3]
Found Entropy: 0
\{\text{Window: 78} > \text{X:[19,22]} \text{Y:[-3,0]}
Found Entropy: 0
\forall \text{Window: } 79 > X:[19, 22] Y:[0, 3]
Found Entropy: 0
<Window: 80 > X:[ 19 , 22 ] Y:[ 3 , 6 ]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.6365141682948128
Total Count: 80
Expected Count: 80
OKAY: True
----Done--- 8.146882998185937
Done!
-26 21 -9 5
You Can use this matrix now.
X_{min} = -26
X_max= 22
Y_min = -9
```

```
Y \max = 6
And the Matrix Shape: 48 * 15
\{\text{Window: 1 > X: [-26, -23] Y: [-9, -6]}
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 0.6837389058487535
\langle \text{Window}: 2 \rangle X: [-26, -23] Y: [-6, -3]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 3 > X: [ -26 , -23 ] Y: [ -3 , 0 ]
Found Entropy: 0
<Window: 4 > X:[ -26 , -23 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 5 > X:[ -26 , -23 ] Y:[ 3 , 6 ]
Found Entropy: 0
\{Window: 6 > X:[ -23 , -20 ] Y:[ -9 , -6 ]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 0
```

```
Found a sample of class: 0
Found Entropy: 0.9097077103274986
<Window: 7 > X:[ -23 , -20 ] Y:[ -6 , -3 ]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.5623351446188083
\langle \text{Window}: 8 \rangle X: [-23, -20] Y: [-3, 0]
Found Entropy: 0
\langle \text{Window: 9} \rangle X: [-23, -20] Y: [0, 3]
Found Entropy: 0
<Window: 10 > X:[ -23 , -20 ] Y:[ 3 , 6 ]
Found Entropy: 0
\{Window: 11 > X:[ -20 , -17 ] Y:[ -9 , -6 ]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.6931471805599453
\{Window: 12 > X:[ -20 , -17 ] Y:[ -6 , -3 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 13 > X:[ -20 , -17 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 14 > X:[ -20 , -17 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 15 > X:[ -20 , -17 ] Y:[ 3 , 6 ]
Found Entropy: 0
<Window: 16 > X:[ -17 , -14 ] Y:[ -9 , -6 ]
Found Entropy: 0
<Window: 17 > X:[ -17 , -14 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 18 > X:[ -17 , -14 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 19 > X:[ -17 , -14 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 20 > X:[ -17 , -14 ] Y:[ 3 , 6 ]
Found Entropy: 0
\{\text{Window: } 21 > X:[-14, -11] \ Y:[-9, -6] \}
Found Entropy: 0
\forall X: [-14, -11] \ Y: [-6, -3]
Found Entropy: 0
```

```
<Window: 23 > X:[ -14 , -11 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 24 > X:[ -14 , -11 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 25 > X:[-14, -11] Y:[3, 6]
Found Entropy: 0
<Window: 26 > X:[-11, -8] Y:[-9, -6]
Found Entropy: 0
\{Window: 27 > X:[ -11 , -8 ] Y:[ -6 , -3 ]
Found Entropy: 0
\{Window: 28 > X:[-11, -8] Y:[-3, 0]
Found Entropy: 0
<Window: 29 > X:[-11, -8] Y:[0, 3]
Found Entropy: 0
<Window: 30 > X:[ -11 , -8 ] Y:[ 3 , 6 ]
Found Entropy: 0
<Window: 31 > X:[ -8 , -5 ] Y:[ -9 , -6 ]
Found Entropy: 0
\forall x = 1.5 \times 10^{-8} = 1.5 \times 
Found Entropy: 0
\langle \text{Window}: 33 \rangle X: [-8, -5] Y: [-3, 0]
Found Entropy: 0
<Window: 34 > X:[ -8 , -5 ] Y:[ 0 , 3 ]
Found Entropy: 0
\langle \text{Window}: 35 \rangle X: [-8, -5] Y: [3, 6]
Found Entropy: 0
<Window: 36 > X:[ -5 , -2 ] Y:[ -9 , -6 ]
Found Entropy: 0
\langle \text{Window}: 37 \rangle X: [-5, -2] Y: [-6, -3]
Found Entropy: 0
<Window: 38 > X:[ -5 , -2 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 39 > X:[ -5 , -2 ] Y:[ 0 , 3 ]
Found Entropy: 0
\{\text{Window}: 40 > X: [-5, -2] Y: [3, 6]
Found Entropy: 0
\{\text{Window: } 41 > X:[-2,1] \ Y:[-9,-6]
Found Entropy: 0
\{\text{Window: } 42 > X:[-2,1] \ Y:[-6,-3]
Found Entropy: 0
<Window: 43 > X:[-2, 1] Y:[-3, 0]
Found Entropy: 0
<Window: 44 > X:[ -2 , 1 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 45 > X:[ -2 , 1 ] Y:[ 3 , 6 ]
Found Entropy: 0
<Window: 46 > X:[1, 4] Y:[-9, -6]
Found Entropy: 0
```

```
<Window: 47 > X:[ 1 , 4 ] Y:[ -6 , -3 ]
Found Entropy: 0
\{\text{Window: } 48 > X: [1, 4] Y: [-3, 0]
Found Entropy: 0
<Window: 49 > X:[1, 4] Y:[0, 3]
Found Entropy: 0
<Window: 50 > X:[1, 4] Y:[3, 6]
Found Entropy: 0
\{\text{Window: 51} > \text{X:[4,7]} \text{Y:[-9,-6]}
Found Entropy: 0
\{Window: 52 > X:[4,7] Y:[-6,-3]
Found Entropy: 0
<Window: 53 > X:[ 4 , 7 ] Y:[ -3 , 0 ]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.6829081047004717
\{\text{Window}: 54 > X: [4, 7] Y: [0, 3]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.8675632284814612
<Window: 55 > X:[4,7] Y:[3,6]
Found Entropy: 0
<Window: 56 > X:[ 7 , 10 ] Y:[ -9 , -6 ]
Found Entropy: 0
<Window: 57 > X:[ 7 , 10 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 58 > X:[ 7 , 10 ] Y:[ -3 , 0 ]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 0.5982695885852573
<Window: 59 > X:[ 7 , 10 ] Y:[ 0 , 3 ]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
```

```
Found a sample of class: 1
Found Entropy: 0.3250829733914482
<Window: 60 > X:[ 7 , 10 ] Y:[ 3 , 6 ]
Found Entropy: 0
<Window: 61 > X:[ 10 , 13 ] Y:[ -9 , -6 ]
Found Entropy: 0
<Window: 62 > X:[ 10 , 13 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 63 > X:[ 10 , 13 ] Y:[ -3 , 0 ]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
\{\text{Window}: 64 > X: [10, 13] Y: [0, 3]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.9743147528693494
<Window: 65 > X:[ 10 , 13 ] Y:[ 3 , 6 ]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.9743147528693494
<Window: 66 > X:[ 13 , 16 ] Y:[ -9 , -6 ]
```

```
Found Entropy: 0
<Window: 67 > X:[ 13 , 16 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 68 > X:[ 13 , 16 ] Y:[ -3 , 0 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 69 > X:[ 13 , 16 ] Y:[ 0 , 3 ]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6869615765973234
<Window: 70 > X:[ 13 , 16 ] Y:[ 3 , 6 ]
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.6365141682948128
<Window: 71 > X:[ 16 , 19 ] Y:[ -9 , -6 ]
Found Entropy: 0
\{\text{Window: 72} > \text{X:[16,19]} \text{Y:[-6,-3]}
Found Entropy: 0
\{\text{Window: 73} > \text{X:[16,19]} \text{Y:[-3,0]}
Found Entropy: 0
\forall \text{Window: } 74 > X:[16, 19] Y:[0, 3]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.47413931305783735
<Window: 75 > X:[ 16 , 19 ] Y:[ 3 , 6 ]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
```

```
Found a sample of class: 2
Found Entropy: 0.8018185525433373
\{\text{Window: 76} > \text{X:[19,22]} \text{Y:[-9,-6]}
Found Entropy: 0
\langle \text{Window}: 77 \rangle X: [19, 22] Y: [-6, -3]
Found Entropy: 0
\{\text{Window: 78} > \text{X:[19,22]} \text{Y:[-3,0]}
Found Entropy: 0
\{\text{Window}: 79 > X: [19, 22] Y: [0, 3]
Found Entropy: 0
<Window: 80 > X:[ 19 , 22 ] Y:[ 3 , 6 ]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.6365141682948128
Total Count: 80
Expected Count: 80
OKAY: True
----Done--- 10.507330121040468
Done!
-26 21 -9 5
You Can use this matrix now.
X_{min} = -26
X_max = 22
Y min=-9
Y \max = 6
And the Matrix Shape: 48 * 15
\{Window: 1 > X: [ -26 , -23 ] Y: [ -9 , -6 ]
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
```

```
Found a sample of class: 0
Found Entropy: 1.0366279688586069
\{Window: 2 > X:[ -26 , -23 ] Y:[ -6 , -3 ]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
<Window: 3 > X:[ -26 , -23 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 4 > X:[ -26 , -23 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 5 > X:[ -26 , -23 ] Y:[ 3 , 6 ]
Found Entropy: 0
\{Window: 6 > X:[ -23 , -20 ] Y:[ -9 , -6 ]
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 0.8785250991271565
\langle \text{Window}: 7 > X: [-23, -20] Y: [-6, -3]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.5623351446188083
<Window: 8 > X:[ -23 , -20 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 9 > X:[ -23 , -20 ] Y:[ 0 , 3 ]
```

```
Found Entropy: 0
<Window: 10 > X:[-23, -20] Y:[3, 6]
Found Entropy: 0
\{Window: 11 > X:[ -20 , -17 ] Y:[ -9 , -6 ]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.6931471805599453
\{\text{Window: } 12 > \text{X:} [-20, -17] \text{ Y:} [-6, -3] \}
Found a sample of class: 0
Found Entropy: 0.0
<Window: 13 > X:[ -20 , -17 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 14 > X:[ -20 , -17 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 15 > X:[ -20 , -17 ] Y:[ 3 , 6 ]
Found Entropy: 0
<Window: 16 > X:[ -17 , -14 ] Y:[ -9 , -6 ]
Found Entropy: 0
\langle \text{Window}: 17 > X: [-17, -14] Y: [-6, -3]
Found Entropy: 0
<Window: 18 > X:[ -17 , -14 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 19 > X:[ -17 , -14 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 20 > X:[ -17 , -14 ] Y:[ 3 , 6 ]
Found Entropy: 0
\langle \text{Window}: 21 \rangle X: [-14, -11] Y: [-9, -6]
Found Entropy: 0
\langle \text{Window}: 22 \rangle X: [-14, -11] Y: [-6, -3]
Found Entropy: 0
\langle \text{Window}: 23 \rangle X: [-14, -11] Y: [-3, 0]
Found Entropy: 0
\{\text{Window: } 24 > X: [-14, -11] \ Y: [0, 3]
Found Entropy: 0
\{\text{Window: } 25 > X: [-14, -11] \ Y: [3, 6]
Found Entropy: 0
<Window: 26 > X:[ -11 , -8 ] Y:[ -9 , -6 ]
Found Entropy: 0
\langle \text{Window: } 27 \rangle \text{ X: [ } -11 \text{ , } -8 \text{ ] } \text{ Y: [ } -6 \text{ , } -3 \text{ ]}
Found Entropy: 0
<Window: 28 > X:[-11, -8] Y:[-3, 0]
Found Entropy: 0
<Window: 29 > X:[ -11 , -8 ] Y:[ 0 , 3 ]
Found Entropy: 0
```

```
<Window: 30 > X:[ -11 , -8 ] Y:[ 3 , 6 ]
Found Entropy: 0
<Window: 31 > X:[ -8 , -5 ] Y:[ -9 , -6 ]
Found Entropy: 0
\langle \text{Window}: 32 \rangle X: [-8, -5] Y: [-6, -3]
Found Entropy: 0
<Window: 33 > X:[ -8 , -5 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 34 > X:[ -8 , -5 ] Y:[ 0 , 3 ]
Found Entropy: 0
\langle \text{Window}: 35 \rangle X: [-8, -5] Y: [3, 6]
Found Entropy: 0
\langle \text{Window}: 36 \rangle X: [-5, -2] Y: [-9, -6]
Found Entropy: 0
<Window: 37 > X:[ -5 , -2 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 38 > X:[-5, -2] Y:[-3, 0]
Found Entropy: 0
<Window: 39 > X:[ -5 , -2 ] Y:[ 0 , 3 ]
Found Entropy: 0
\{\text{Window}: 40 > X: [-5, -2] Y: [3, 6]
Found Entropy: 0
\{\text{Window: } 41 > X:[-2,1] \ Y:[-9,-6]
Found Entropy: 0
\{\text{Window: } 42 > X: [-2, 1] Y: [-6, -3]
Found Entropy: 0
<Window: 43 > X:[ -2 , 1 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 44 > X:[ -2 , 1 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 45 > X:[-2, 1] Y:[3, 6]
Found Entropy: 0
<Window: 46 > X:[1, 4] Y:[-9, -6]
Found Entropy: 0
\{\text{Window}: 47 > X: [1, 4] Y: [-6, -3]
Found Entropy: 0
<Window: 48 > X:[1, 4] Y:[-3, 0]
Found Entropy: 0
<Window: 49 > X:[1, 4] Y:[0, 3]
Found Entropy: 0
<Window: 50 > X:[ 1 , 4 ] Y:[ 3 , 6 ]
Found Entropy: 0
<Window: 51 > X:[ 4 , 7 ] Y:[ -9 , -6 ]
Found Entropy: 0
\{Window: 52 > X:[4,7] Y:[-6,-3]
Found Entropy: 0
<Window: 53 > X:[ 4 , 7 ] Y:[ -3 , 0 ]
Found a sample of class: 0
```

```
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 1.0789922078775833
<Window: 54 > X:[4,7] Y:[0,3]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 1.0114042647073518
<Window: 55 > X:[ 4 , 7 ] Y:[ 3 , 6 ]
Found Entropy: 0
<Window: 56 > X:[ 7 , 10 ] Y:[ -9 , -6 ]
Found Entropy: 0
<Window: 57 > X:[ 7 , 10 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 58 > X:[ 7 , 10 ] Y:[ -3 , 0 ]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.7963116401738131
<Window: 59 > X:[ 7 , 10 ] Y:[ 0 , 3 ]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.8018185525433373
<Window: 60 > X:[ 7 , 10 ] Y:[ 3 , 6 ]
Found Entropy: 0
<Window: 61 > X:[ 10 , 13 ] Y:[ -9 , -6 ]
Found Entropy: 0
<Window: 62 > X:[ 10 , 13 ] Y:[ -6 , -3 ]
Found Entropy: 0
```

```
<Window: 63 > X:[ 10 , 13 ] Y:[ -3 , 0 ]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.6365141682948128
<Window: 64 > X:[10, 13] Y:[0, 3]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.8815322611881636
<Window: 65 > X:[ 10 , 13 ] Y:[ 3 , 6 ]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 1.0821955300387671
<Window: 66 > X:[13, 16] Y:[-9, -6]
Found Entropy: 0
<Window: 67 > X:[ 13 , 16 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 68 > X:[ 13 , 16 ] Y:[ -3 , 0 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 69 > X:[ 13 , 16 ] Y:[ 0 , 3 ]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
```

```
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 1.0608569471580214
<Window: 70 > X:[ 13 , 16 ] Y:[ 3 , 6 ]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.6365141682948128
\{\text{Window: 71} > \text{X:[16,19]} \text{Y:[-9,-6]}
Found Entropy: 0
\forall \text{Window: } 72 > X:[16, 19] Y:[-6, -3]
Found Entropy: 0
<Window: 73 > X:[ 16 , 19 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 74 > X:[ 16 , 19 ] Y:[ 0 , 3 ]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.7595473914748635
<Window: 75 > X:[ 16 , 19 ] Y:[ 3 , 6 ]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.9502705392332347
\{\text{Window: 76} > \text{X:[19,22]} \text{Y:[-9,-6]}
Found Entropy: 0
\langle \text{Window}: 77 \rangle X: [19, 22] Y: [-6, -3]
Found Entropy: 0
\langle \text{Window}: 78 \rangle X: [19, 22] Y: [-3, 0]
Found Entropy: 0
<Window: 79 > X:[ 19 , 22 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 80 > X:[ 19 , 22 ] Y:[ 3 , 6 ]
```

```
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 1.0608569471580214
Total Count: 80
Expected Count: 80
OKAY: True
----Done--- 13.927450011307299
Done!
-26 21 -9 5
You Can use this matrix now.
X min = -26
X_max= 22
Y min=-9
Y \max = 6
And the Matrix Shape: 48 * 15
\langle \text{Window}: 1 > X: [-26, -23] Y: [-9, -6]
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 1.0688206728265008
\{\text{Window: 2 > X:[-26,-23] Y:[-6,-3]}
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\forall x \in X : [-26, -23] Y : [-3, 0]
Found Entropy: 0
```

```
<Window: 4 > X:[ -26 , -23 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 5 > X:[ -26 , -23 ] Y:[ 3 , 6 ]
Found Entropy: 0
\{Window: 6 > X:[ -23 , -20 ] Y:[ -9 , -6 ]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 1.0171643509248343
\{Window: 7 > X:[ -23 , -20 ] Y:[ -6 , -3 ]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.6931471805599453
<Window: 8 > X:[ -23 , -20 ] Y:[ -3 , 0 ]
Found Entropy: 0
\langle \text{Window: 9} \rangle X: [-23, -20] Y: [0, 3]
Found Entropy: 0
\langle \text{Window}: 10 \rangle X: [-23, -20] Y: [3, 6]
Found Entropy: 0
\{Window: 11 > X:[ -20 , -17 ] Y:[ -9 , -6 ]
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 1.0114042647073518
\langle \text{Window}: 12 \rangle X: [-20, -17] Y: [-6, -3]
Found a sample of class: 0
Found Entropy: 0.0
```

```
<Window: 13 > X:[ -20 , -17 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 14 > X:[ -20 , -17 ] Y:[ 0 , 3 ]
Found Entropy: 0
\{\text{Window: } 15 > X: [-20, -17] \ Y: [3, 6]
Found Entropy: 0
<Window: 16 > X:[ -17 , -14 ] Y:[ -9 , -6 ]
Found Entropy: 0
<Window: 17 > X:[ -17 , -14 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 18 > X:[ -17 , -14 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 19 > X:[ -17 , -14 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 20 > X:[ -17 , -14 ] Y:[ 3 , 6 ]
Found Entropy: 0
\langle \text{Window}: 21 \rangle X: [-14, -11] Y: [-9, -6]
Found Entropy: 0
\forall X: [-14, -11] \ Y: [-6, -3]
Found Entropy: 0
\langle \text{Window}: 23 \rangle X: [-14, -11] Y: [-3, 0]
Found Entropy: 0
<Window: 24 > X:[ -14 , -11 ] Y:[ 0 , 3 ]
Found Entropy: 0
\langle \text{Window: } 25 \rangle X: [-14, -11] Y: [3, 6]
Found Entropy: 0
\langle \text{Window: 26} \rangle \text{ X: [-11, -8] Y: [-9, -6]}
Found Entropy: 0
\langle \text{Window: } 27 \rangle \text{ X: [ } -11 \text{ , } -8 \text{ ] } \text{ Y: [ } -6 \text{ , } -3 \text{ ]}
Found Entropy: 0
<Window: 28 > X:[-11, -8] Y:[-3, 0]
Found Entropy: 0
<Window: 29 > X:[ -11 , -8 ] Y:[ 0 , 3 ]
Found Entropy: 0
\langle \text{Window}: 30 \rangle X: [-11, -8] Y: [3, 6]
Found Entropy: 0
\{Window: 31 > X:[ -8 , -5 ] Y:[ -9 , -6 ]
Found Entropy: 0
\langle \text{Window}: 32 \rangle X: [-8, -5] Y: [-6, -3]
Found Entropy: 0
<Window: 33 > X:[ -8 , -5 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 34 > X:[ -8 , -5 ] Y:[ 0 , 3 ]
Found Entropy: 0
\langle \text{Window: } 35 \rangle \text{ X:[} -8 , -5 ] \text{ Y:[} 3 , 6 ]
Found Entropy: 0
\langle \text{Window}: 36 \rangle X: [-5, -2] Y: [-9, -6]
Found Entropy: 0
```

```
\langle \text{Window}: 37 \rangle X: [-5, -2] Y: [-6, -3]
Found Entropy: 0
<Window: 38 > X:[-5, -2] Y:[-3, 0]
Found Entropy: 0
<Window: 39 > X:[ -5 , -2 ] Y:[ 0 , 3 ]
Found Entropy: 0
\{\text{Window}: 40 > X: [-5, -2] Y: [3, 6]
Found Entropy: 0
\{\text{Window: } 41 > X:[-2,1] \ Y:[-9,-6]
Found Entropy: 0
\{\text{Window: } 42 > X: [-2, 1] Y: [-6, -3]
Found Entropy: 0
\{\text{Window}: 43 > X: [-2, 1] Y: [-3, 0]
Found Entropy: 0
<Window: 44 > X:[ -2 , 1 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 45 > X:[-2, 1] Y:[3, 6]
Found Entropy: 0
\{\text{Window: } 46 > X:[1,4] Y:[-9,-6]
Found Entropy: 0
\langle \text{Window}: 47 \rangle X: [1, 4] Y: [-6, -3]
Found Entropy: 0
<Window: 48 > X:[1, 4] Y:[-3, 0]
Found Entropy: 0
<Window: 49 > X:[1, 4] Y:[0, 3]
Found Entropy: 0
<Window: 50 > X:[ 1 , 4 ] Y:[ 3 , 6 ]
Found Entropy: 0
<Window: 51 > X:[ 4 , 7 ] Y:[ -9 , -6 ]
Found Entropy: 0
\{Window: 52 > X:[ 4 , 7 ] Y:[ -6 , -3 ]
Found Entropy: 0
\{\text{Window}: 53 > X: [4, 7] Y: [-3, 0]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.6829081047004717
<Window: 54 > X:[4,7]Y:[0,3]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
```

```
Found Entropy: 1.0114042647073518
<Window: 55 > X:[ 4 , 7 ] Y:[ 3 , 6 ]
Found Entropy: 0
<Window: 56 > X:[ 7 , 10 ] Y:[ -9 , -6 ]
Found Entropy: 0
<Window: 57 > X:[ 7 , 10 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 58 > X:[ 7 , 10 ] Y:[ -3 , 0 ]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.5982695885852573
<Window: 59 > X:[ 7 , 10 ] Y:[ 0 , 3 ]
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.6730116670092565
<Window: 60 > X:[ 7 , 10 ] Y:[ 3 , 6 ]
Found Entropy: 0
<Window: 61 > X:[ 10 , 13 ] Y:[ -9 , -6 ]
Found Entropy: 0
<Window: 62 > X:[ 10 , 13 ] Y:[ -6 , -3 ]
Found Entropy: 0
\langle Window: 63 \rangle X: [10, 13] Y: [-3, 0]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 1.0986122886681096
<Window: 64 > X:[10, 13] Y:[0, 3]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
```

```
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 1.0239287996389363
<Window: 65 > X:[ 10 , 13 ] Y:[ 3 , 6 ]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.9002560512685369
<Window: 66 > X:[ 13 , 16 ] Y:[ -9 , -6 ]
Found Entropy: 0
<Window: 67 > X:[ 13 , 16 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 68 > X:[ 13 , 16 ] Y:[ -3 , 0 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 69 > X:[ 13 , 16 ] Y:[ 0 , 3 ]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.9368883075390159
<Window: 70 > X:[ 13 , 16 ] Y:[ 3 , 6 ]
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.6365141682948128
<Window: 71 > X:[ 16 , 19 ] Y:[ -9 , -6 ]
Found Entropy: 0
<Window: 72 > X:[ 16 , 19 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 73 > X:[ 16 , 19 ] Y:[ -3 , 0 ]
Found Entropy: 0
```

```
<Window: 74 > X:[ 16 , 19 ] Y:[ 0 , 3 ]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.9075352941050093
<Window: 75 > X:[ 16 , 19 ] Y:[ 3 , 6 ]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.9433483923290393
\{\text{Window}: 76 > X: [19, 22] Y: [-9, -6]
Found Entropy: 0
<Window: 77 > X:[ 19 , 22 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 78 > X:[19, 22] Y:[-3, 0]
Found Entropy: 0
<Window: 79 > X:[ 19 , 22 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 80 > X:[ 19 , 22 ] Y:[ 3 , 6 ]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 1.0986122886681096
Total Count: 80
Expected Count: 80
OKAY: True
----Done--- 14.301825684532538
```

```
Done!
-26 21 -9 5
You Can use this matrix now.
X \min = -26
X \max = 22
Y min=-9
Y \max = 6
And the Matrix Shape: 48 * 15
\{\text{Window: 1 > X:[-26,-23] Y:[-9,-6]}
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 0.9368883075390159
\langle \text{Window}: 2 \rangle X:[-26, -23] Y:[-6, -3]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
<Window: 3 > X:[ -26 , -23 ] Y:[ -3 , 0 ]
Found Entropy: 0
\{\text{Window}: 4 > X: [-26, -23] Y: [0, 3]
Found Entropy: 0
\{\text{Window: 5} > \text{X:[-26,-23]} \text{ Y:[3,6]}
Found Entropy: 0
\{\text{Window: 6} > \text{X:[-23,-20]} \text{Y:[-9,-6]}
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
```

```
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 1.0601189359398382
\{\text{Window}: 7 > X: [-23, -20] Y: [-6, -3]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 8 > X:[ -23 , -20 ] Y:[ -3 , 0 ]
Found Entropy: 0
\langle \text{Window}: 9 \rangle X: [-23, -20] Y: [0, 3]
Found Entropy: 0
\langle \text{Window}: 10 \rangle X: [-23, -20] Y: [3, 6]
Found Entropy: 0
\{Window: 11 > X:[ -20 , -17 ] Y:[ -9 , -6 ]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 1.0114042647073516
\langle \text{Window}: 12 \rangle X: [-20, -17] Y: [-6, -3]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 13 \rangle X: [-20, -17] Y: [-3, 0]
Found Entropy: 0
\{\text{Window: } 14 > X:[-20, -17] \ Y:[0, 3]
Found Entropy: 0
\{\text{Window: } 15 > X:[-20, -17] \ Y:[3, 6]
Found Entropy: 0
<Window: 16 > X:[ -17 , -14 ] Y:[ -9 , -6 ]
Found Entropy: 0
\langle \text{Window}: 17 > X: [-17, -14] Y: [-6, -3]
Found Entropy: 0
<Window: 18 > X:[ -17 , -14 ] Y:[ -3 , 0 ]
Found Entropy: 0
\forall x \in \mathbb{Z} (Window: 19 > X:[ -17 , -14 ] Y:[ 0 , 3 ]
Found Entropy: 0
```

```
<Window: 20 > X:[ -17 , -14 ] Y:[ 3 , 6 ]
Found Entropy: 0
\langle \text{Window}: 21 \rangle X: [-14, -11] Y: [-9, -6]
Found Entropy: 0
\{\text{Window: } 22 > \text{X:} [-14, -11] \text{ Y:} [-6, -3] \}
Found Entropy: 0
<Window: 23 > X:[ -14 , -11 ] Y:[ -3 , 0 ]
Found Entropy: 0
\{\text{Window: } 24 > X: [-14, -11] \ Y: [0, 3]
Found Entropy: 0
<Window: 25 > X:[ -14 , -11 ] Y:[ 3 , 6 ]
Found Entropy: 0
\{Window: 26 > X:[-11, -8] Y:[-9, -6]
Found Entropy: 0
\langle \text{Window: } 27 \rangle \text{ X: [ } -11 \text{ , } -8 \text{ ] } \text{ Y: [ } -6 \text{ , } -3 \text{ ]}
Found Entropy: 0
<Window: 28 > X:[-11, -8] Y:[-3, 0]
Found Entropy: 0
<Window: 29 > X:[ -11 , -8 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 30 > X:[ -11 , -8 ] Y:[ 3 , 6 ]
Found Entropy: 0
\langle \text{Window: } 31 \rangle \text{ X:[} -8 , -5 ] \text{ Y:[} -9 , -6 ]
Found Entropy: 0
\langle \text{Window}: 32 \rangle X: [-8, -5] Y: [-6, -3]
Found Entropy: 0
<Window: 33 > X:[ -8 , -5 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 34 > X:[ -8 , -5 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 35 > X:[ -8 , -5 ] Y:[ 3 , 6 ]
Found Entropy: 0
<Window: 36 > X:[-5, -2] Y:[-9, -6]
Found Entropy: 0
\{Window: 37 > X: [-5, -2] Y: [-6, -3] <math>\}
Found Entropy: 0
\langle \text{Window}: 38 > X: [-5, -2] Y: [-3, 0]
Found Entropy: 0
<Window: 39 > X:[ -5 , -2 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 40 > X:[-5, -2] Y:[3, 6]
Found Entropy: 0
\{\text{Window: } 41 > X:[-2,1] \ Y:[-9,-6]
Found Entropy: 0
\{\text{Window: } 42 > X: [ -2 , 1 ] Y: [ -6 , -3 ] \}
Found Entropy: 0
<Window: 43 > X:[-2, 1] Y:[-3, 0]
Found Entropy: 0
```

```
<Window: 44 > X:[ -2 , 1 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 45 > X:[-2, 1] Y:[3, 6]
Found Entropy: 0
<Window: 46 > X:[1, 4] Y:[-9, -6]
Found Entropy: 0
\{\text{Window}: 47 > X: [1, 4] Y: [-6, -3]
Found Entropy: 0
<Window: 48 > X:[1, 4] Y:[-3, 0]
Found Entropy: 0
<Window: 49 > X:[1, 4] Y:[0, 3]
Found Entropy: 0
<Window: 50 > X:[ 1 , 4 ] Y:[ 3 , 6 ]
Found Entropy: 0
\{Window: 51 > X:[4,7] Y:[-9,-6]
Found Entropy: 0
\{Window: 52 > X:[4,7] Y:[-6,-3]
Found Entropy: 0
<Window: 53 > X:[ 4 , 7 ] Y:[ -3 , 0 ]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.6829081047004717
<Window: 54 > X:[4, 7] Y:[0, 3]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.6365141682948128
<Window: 55 > X:[4,7] Y:[3,6]
Found Entropy: 0
<Window: 56 > X:[7, 10] Y:[-9, -6]
Found Entropy: 0
<Window: 57 > X:[ 7 , 10 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 58 > X:[7, 10] Y:[-3, 0]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 1
```

```
Found a sample of class: 1
Found Entropy: 0.7963116401738131
<Window: 59 > X:[ 7 , 10 ] Y:[ 0 , 3 ]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.8979457248567797
<Window: 60 > X:[ 7 , 10 ] Y:[ 3 , 6 ]
Found Entropy: 0
<Window: 61 > X:[ 10 , 13 ] Y:[ -9 , -6 ]
Found Entropy: 0
\{\text{Window: } 62 > X: [10, 13] Y: [-6, -3]
Found Entropy: 0
<Window: 63 > X:[ 10 , 13 ] Y:[ -3 , 0 ]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
\{\text{Window}: 64 > X: [10, 13] Y: [0, 3]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 1.0821955300387671
<Window: 65 > X:[ 10 , 13 ] Y:[ 3 , 6 ]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
```

```
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 1.0397207708399179
<Window: 66 > X:[13, 16] Y:[-9, -6]
Found Entropy: 0
<Window: 67 > X:[ 13 , 16 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 68 > X:[ 13 , 16 ] Y:[ -3 , 0 ]
Found a sample of class: 0
Found Entropy: 0.0
\{\text{Window: } 69 > X: [13, 16] Y: [0, 3]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.8486855577264172
<Window: 70 > X:[ 13 , 16 ] Y:[ 3 , 6 ]
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.6365141682948128
\forall X: [16, 19] Y: [-9, -6]
Found Entropy: 0
\langle \text{Window}: 72 \rangle X: [16, 19] Y: [-6, -3]
Found Entropy: 0
<Window: 73 > X:[ 16 , 19 ] Y:[ -3 , 0 ]
Found Entropy: 0
\forall \text{Window: } 74 > X:[16,19] Y:[0,3]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.8599672810355049
<Window: 75 > X:[ 16 , 19 ] Y:[ 3 , 6 ]
```

```
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.5004024235381879
\{Window: 76 > X: [ 19 , 22 ] Y: [ -9 , -6 ]
Found Entropy: 0
\langle \text{Window}: 77 \rangle X: [19, 22] Y: [-6, -3]
Found Entropy: 0
<Window: 78 > X:[19, 22] Y:[-3, 0]
Found Entropy: 0
\forall \text{Window: } 79 > X:[19, 22] Y:[0, 3]
Found Entropy: 0
<Window: 80 > X:[ 19 , 22 ] Y:[ 3 , 6 ]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.9368883075390159
Total Count: 80
Expected Count: 80
OKAY: True
----Done--- 12.619612365784652
Done!
-26 21 -9 5
You Can use this matrix now.
X \min = -26
X_max= 22
Y_min = -9
Y_max=6
And the Matrix Shape: 48 * 15
\{\text{Window: 1 > X:[-26,-23] Y:[-9,-6]}
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
```

```
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 1.0263306332944864
\langle \text{Window}: 2 \rangle X: [-26, -23] Y: [-6, -3]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\{\text{Window: 3 > X:[-26,-23] Y:[-3,0]}
Found Entropy: 0
\langle Window: 4 \rangle X: [-26, -23] Y: [0, 3]
Found Entropy: 0
\{\text{Window: 5} > \text{X:[-26,-23]} \text{ Y:[3,6]}
Found Entropy: 0
\{Window: 6 > X:[ -23 , -20 ] Y:[ -9 , -6 ]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 1.0958871542125537
\{\text{Window}: 7 > X: [-23, -20] Y: [-6, -3]
Found a sample of class: 2
Found a sample of class: 1
```

```
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.6931471805599453
<Window: 8 > X:[ -23 , -20 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 9 > X:[ -23 , -20 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 10 > X:[ -23 , -20 ] Y:[ 3 , 6 ]
Found Entropy: 0
\{Window: 11 > X: [-20, -17] Y: [-9, -6]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 1.0114042647073518
\langle \text{Window}: 12 \rangle X: [-20, -17] Y: [-6, -3]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 13 \rangle X: [-20, -17] Y: [-3, 0]
Found Entropy: 0
<Window: 14 > X:[ -20 , -17 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 15 > X:[ -20 , -17 ] Y:[ 3 , 6 ]
Found Entropy: 0
<Window: 16 > X:[ -17 , -14 ] Y:[ -9 , -6 ]
Found Entropy: 0
\langle \text{Window}: 17 > X: [-17, -14] Y: [-6, -3]
Found Entropy: 0
<Window: 18 > X:[ -17 , -14 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 19 > X:[ -17 , -14 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 20 > X:[ -17 , -14 ] Y:[ 3 , 6 ]
Found Entropy: 0
\{Window: 21 > X:[ -14 , -11 ] Y:[ -9 , -6 ]
Found Entropy: 0
\{Window: 22 > X: [-14, -11] Y: [-6, -3]
Found Entropy: 0
<Window: 23 > X:[ -14 , -11 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 24 > X:[ -14 , -11 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 25 > X:[-14, -11] Y:[3, 6]
Found Entropy: 0
<Window: 26 > X:[ -11 , -8 ] Y:[ -9 , -6 ]
Found Entropy: 0
```

```
\langle \text{Window: } 27 \rangle \text{ X: [ } -11 \text{ , } -8 \text{ ] } \text{ Y: [ } -6 \text{ , } -3 \text{ ]}
Found Entropy: 0
<Window: 28 > X:[-11, -8] Y:[-3, 0]
Found Entropy: 0
<Window: 29 > X:[ -11 , -8 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 30 > X:[ -11 , -8 ] Y:[ 3 , 6 ]
Found Entropy: 0
\{\text{Window: } 31 > \text{X:} [-8, -5] \text{ Y:} [-9, -6] \}
Found Entropy: 0
\{\text{Window: } 32 > \text{X:} [-8, -5] \text{ Y:} [-6, -3] \}
Found Entropy: 0
<Window: 33 > X:[ -8 , -5 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 34 > X:[-8, -5] Y:[0, 3]
Found Entropy: 0
<Window: 35 > X:[-8, -5] Y:[3, 6]
Found Entropy: 0
\forall X: [-5, -2] Y: [-9, -6]
Found Entropy: 0
\langle \text{Window}: 37 \rangle X: [-5, -2] Y: [-6, -3]
Found Entropy: 0
<Window: 38 > X:[ -5 , -2 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 39 > X:[ -5 , -2 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 40 > X:[ -5 , -2 ] Y:[ 3 , 6 ]
Found Entropy: 0
\{\text{Window: } 41 > X:[-2,1] \ Y:[-9,-6]
Found Entropy: 0
\{\text{Window: } 42 > X:[-2,1] Y:[-6,-3]
Found Entropy: 0
<Window: 43 > X:[ -2 , 1 ] Y:[ -3 , 0 ]
Found Entropy: 0
\{\text{Window: } 44 > X: [-2, 1] Y: [0, 3]
Found Entropy: 0
\{\text{Window: } 45 > X: [-2, 1] Y: [3, 6]
Found Entropy: 0
\{\text{Window}: 46 > X: [1, 4] Y: [-9, -6]
Found Entropy: 0
<Window: 47 > X:[1, 4] Y:[-6, -3]
Found Entropy: 0
<Window: 48 > X:[1, 4] Y:[-3, 0]
Found Entropy: 0
<Window: 49 > X:[1, 4] Y:[0, 3]
Found Entropy: 0
<Window: 50 > X:[ 1 , 4 ] Y:[ 3 , 6 ]
Found Entropy: 0
```

```
<Window: 51 > X:[ 4 , 7 ] Y:[ -9 , -6 ]
Found Entropy: 0
\{Window: 52 > X:[4,7] Y:[-6,-3]
Found Entropy: 0
\langle \text{Window}: 53 \rangle X: [4, 7] Y: [-3, 0]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 1.0042424730540764
<Window: 54 > X:[4,7] Y:[0,3]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 0.6365141682948128
<Window: 55 > X:[4,7] Y:[3,6]
Found Entropy: 0
<Window: 56 > X:[7, 10] Y:[-9, -6]
Found Entropy: 0
\{Window: 57 > X:[7, 10] Y:[-6, -3]
Found Entropy: 0
<Window: 58 > X:[7, 10] Y:[-3, 0]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.9556998911125343
\langle Window: 59 \rangle X: [7, 10] Y: [0, 3]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 1.0296530140645737
```

```
<Window: 60 > X:[ 7 , 10 ] Y:[ 3 , 6 ]
Found Entropy: 0
<Window: 61 > X:[ 10 , 13 ] Y:[ -9 , -6 ]
Found Entropy: 0
\{Window: 62 > X: [ 10 , 13 ] Y: [ -6 , -3 ]
Found Entropy: 0
\langle \text{Window}: 63 \rangle X: [10, 13] Y: [-3, 0]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.6365141682948128
<Window: 64 > X:[ 10 , 13 ] Y:[ 0 , 3 ]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 1.0821955300387671
<Window: 65 > X:[ 10 , 13 ] Y:[ 3 , 6 ]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 1.0821955300387671
<Window: 66 > X:[13, 16] Y:[-9, -6]
Found Entropy: 0
\{\text{Window: } 67 > \text{X:} [13, 16] \text{ Y:} [-6, -3]
Found Entropy: 0
\{\text{Window: 68} > X: [13, 16] Y: [-3, 0]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 69 > X:[ 13 , 16 ] Y:[ 0 , 3 ]
Found a sample of class: 2
```

```
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 1.0608569471580214
<Window: 70 > X:[ 13 , 16 ] Y:[ 3 , 6 ]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 1.0986122886681096
<Window: 71 > X:[ 16 , 19 ] Y:[ -9 , -6 ]
Found Entropy: 0
<Window: 72 > X:[ 16 , 19 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 73 > X:[ 16 , 19 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 74 > X:[ 16 , 19 ] Y:[ 0 , 3 ]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.9075352941050093
<Window: 75 > X:[ 16 , 19 ] Y:[ 3 , 6 ]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.8018185525433372
<Window: 76 > X:[ 19 , 22 ] Y:[ -9 , -6 ]
Found Entropy: 0
<Window: 77 > X:[ 19 , 22 ] Y:[ -6 , -3 ]
```

```
Found Entropy: 0
<Window: 78 > X:[19, 22] Y:[-3, 0]
Found Entropy: 0
<Window: 79 > X:[ 19 , 22 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 80 > X:[ 19 , 22 ] Y:[ 3 , 6 ]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.9649629230074277
Total Count: 80
Expected Count: 80
OKAY: True
----Done---- 15.087570013154586
Done!
-26 21 -9 5
You Can use this matrix now.
X_{min} = -26
X_max = 22
Y_{min} = -9
Y_max=6
And the Matrix Shape: 48 * 15
<Window: 1 > X:[ -26 , -23 ] Y:[ -9 , -6 ]
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.9649629230074277
```

```
\langle \text{Window}: 2 \rangle X: [-26, -23] Y: [-6, -3]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\{\text{Window: 3 > X:[-26,-23] Y:[-3,0]}
Found Entropy: 0
\{\text{Window: 4 > X:[-26,-23] Y:[0,3]}
Found Entropy: 0
\{\text{Window: 5} > \text{X:[-26,-23]} \text{ Y:[3,6]}
Found Entropy: 0
\{\text{Window: 6} > X: [-23, -20] Y: [-9, -6]\}
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.9932682101499607
\langle \text{Window: 7 > X:[-23,-20] Y:[-6,-3]}
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.5623351446188083
\langle \text{Window: 8 > X:[-23,-20] Y:[-3,0]}
Found Entropy: 0
\langle \text{Window: 9} \rangle X: [-23, -20] Y: [0, 3]
Found Entropy: 0
\{Window: 10 > X:[ -23 , -20 ] Y:[ 3 , 6 ]
Found Entropy: 0
\{Window: 11 > X:[ -20 , -17 ] Y:[ -9 , -6 ]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
```

```
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 1.0986122886681096
\{Window: 12 > X:[ -20 , -17 ] Y:[ -6 , -3 ]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 13 \rangle X: [-20, -17] Y: [-3, 0]
Found Entropy: 0
<Window: 14 > X:[ -20 , -17 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 15 > X:[ -20 , -17 ] Y:[ 3 , 6 ]
Found Entropy: 0
\langle \text{Window}: 16 \rangle X: [-17, -14] Y: [-9, -6]
Found Entropy: 0
\langle \text{Window}: 17 > X: [-17, -14] Y: [-6, -3]
Found Entropy: 0
<Window: 18 > X:[ -17 , -14 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 19 > X:[ -17 , -14 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 20 > X:[ -17 , -14 ] Y:[ 3 , 6 ]
Found Entropy: 0
\langle \text{Window}: 21 \rangle X: [-14, -11] Y: [-9, -6]
Found Entropy: 0
\langle \text{Window: } 22 \rangle \text{ X: [ } -14 \text{ , } -11 \text{ ] } \text{ Y: [ } -6 \text{ , } -3 \text{ ]}
Found Entropy: 0
<Window: 23 > X:[ -14 , -11 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 24 > X:[ -14 , -11 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 25 > X:[ -14 , -11 ] Y:[ 3 , 6 ]
Found Entropy: 0
\langle \text{Window}: 26 \rangle X: [-11, -8] Y: [-9, -6]
Found Entropy: 0
\langle \text{Window}: 27 \rangle X: [-11, -8] Y: [-6, -3]
Found Entropy: 0
<Window: 28 > X:[-11, -8] Y:[-3, 0]
Found Entropy: 0
\langle \text{Window: 29} \rangle X: [-11, -8] Y: [0, 3]
Found Entropy: 0
<Window: 30 > X:[ -11 , -8 ] Y:[ 3 , 6 ]
Found Entropy: 0
<Window: 31 > X:[ -8 , -5 ] Y:[ -9 , -6 ]
Found Entropy: 0
\langle \text{Window: } 32 \rangle \text{ X:[} -8 \text{ , } -5 \text{] } \text{ Y:[} -6 \text{ , } -3 \text{]}
Found Entropy: 0
<Window: 33 > X:[ -8 , -5 ] Y:[ -3 , 0 ]
Found Entropy: 0
```

```
<Window: 34 > X:[ -8 , -5 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 35 > X:[-8, -5] Y:[3, 6]
Found Entropy: 0
\{Window: 36 \} X: [ -5 , -2 ] Y: [ -9 , -6 ]
Found Entropy: 0
\{Window: 37 > X: [-5, -2] Y: [-6, -3] <math>\}
Found Entropy: 0
\langle \text{Window}: 38 > X: [-5, -2] Y: [-3, 0]
Found Entropy: 0
\langle \text{Window}: 39 \rangle X: [-5, -2] Y: [0, 3]
Found Entropy: 0
\{\text{Window}: 40 > X: [-5, -2] Y: [3, 6]
Found Entropy: 0
\{\text{Window: } 41 > X:[-2,1] \ Y:[-9,-6]
Found Entropy: 0
<Window: 42 > X:[-2, 1] Y:[-6, -3]
Found Entropy: 0
<Window: 43 > X:[-2, 1] Y:[-3, 0]
Found Entropy: 0
<Window: 44 > X:[ -2 , 1 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 45 > X:[-2, 1] Y:[3, 6]
Found Entropy: 0
<Window: 46 > X:[ 1 , 4 ] Y:[ -9 , -6 ]
Found Entropy: 0
<Window: 47 > X:[ 1 , 4 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 48 > X:[1, 4] Y:[-3, 0]
Found Entropy: 0
<Window: 49 > X:[1, 4] Y:[0, 3]
Found Entropy: 0
<Window: 50 > X:[ 1 , 4 ] Y:[ 3 , 6 ]
Found Entropy: 0
\{Window: 51 > X:[4,7] Y:[-9,-6]
Found Entropy: 0
\{\text{Window}: 52 > X: [4, 7] Y: [-6, -3]
Found Entropy: 0
\{\text{Window: 53} > X: [4, 7] Y: [-3, 0]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 1.0789922078775833
<Window: 54 > X:[4,7] Y:[0,3]
```

```
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 55 > X:[ 4 , 7 ] Y:[ 3 , 6 ]
Found Entropy: 0
<Window: 56 > X:[ 7 , 10 ] Y:[ -9 , -6 ]
Found Entropy: 0
\langle Window: 57 \rangle X:[7, 10] Y:[-6, -3]
Found Entropy: 0
<Window: 58 > X:[ 7 , 10 ] Y:[ -3 , 0 ]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 1.0789922078775833
<Window: 59 > X:[ 7 , 10 ] Y:[ 0 , 3 ]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 1.0888999753452238
\{\text{Window: } 60 > X: [7, 10] Y: [3, 6]
Found Entropy: 0
<Window: 61 > X:[ 10 , 13 ] Y:[ -9 , -6 ]
Found Entropy: 0
\{\text{Window: } 62 > X: [10, 13] Y: [-6, -3]
Found Entropy: 0
<Window: 63 > X:[ 10 , 13 ] Y:[ -3 , 0 ]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.6365141682948128
<Window: 64 > X:[ 10 , 13 ] Y:[ 0 , 3 ]
Found a sample of class: 2
Found a sample of class: 2
```

```
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 0.9840865030829146
<Window: 65 > X:[ 10 , 13 ] Y:[ 3 , 6 ]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.9743147528693494
\{\text{Window: } 66 > X: [13, 16] Y: [-9, -6]
Found Entropy: 0
<Window: 67 > X:[ 13 , 16 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 68 > X:[ 13 , 16 ] Y:[ -3 , 0 ]
Found a sample of class: 2
Found Entropy: 0.0
\{\text{Window: } 69 > X: [13, 16] Y: [0, 3]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.9649629230074277
<Window: 70 > X:[ 13 , 16 ] Y:[ 3 , 6 ]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
```

```
\langle \text{Window}: 71 \rangle X: [16, 19] Y: [-9, -6]
Found Entropy: 0
\forall \text{Window: } 72 > X:[16, 19] Y:[-6, -3]
Found Entropy: 0
\langle \text{Window}: 73 \rangle X: [16, 19] Y: [-3, 0]
Found Entropy: 0
\langle Window: 74 \rangle X: [16, 19] Y: [0, 3]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 1.0361987848192837
<Window: 75 > X:[ 16 , 19 ] Y:[ 3 , 6 ]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.8979457248567797
<Window: 76 > X:[ 19 , 22 ] Y:[ -9 , -6 ]
Found Entropy: 0
\{\text{Window: } 77 > \text{X:} [19, 22] \text{ Y:} [-6, -3]
Found Entropy: 0
\{\text{Window: 78} > \text{X:[19,22]} \text{Y:[-3,0]}
Found Entropy: 0
<Window: 79 > X:[ 19 , 22 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 80 > X:[ 19 , 22 ] Y:[ 3 , 6 ]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
```

```
Found a sample of class: 0
Found Entropy: 0.6365141682948128
Total Count: 80
Expected Count: 80
OKAY: True
----Done--- 13.689747163330022
-26 21 -9 5
You Can use this matrix now.
X \min = -26
X_max = 22
Y_{min} = -9
Y_max=6
And the Matrix Shape: 48 * 15
\{Window: 1 > X:[ -26 , -23 ] Y:[ -9 , -6 ]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.9580002800887726
\langle \text{Window}: 2 \rangle X: [-26, -23] Y: [-6, -3]
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.6931471805599453
\{\text{Window: 3 > X:[-26,-23] Y:[-3,0]}
Found Entropy: 0
<Window: 4 > X:[ -26 , -23 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 5 > X:[ -26 , -23 ] Y:[ 3 , 6 ]
Found Entropy: 0
<Window: 6 > X:[ -23 , -20 ] Y:[ -9 , -6 ]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
```

```
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.7534424611802384
\{\text{Window}: 7 > X: [-23, -20] Y: [-6, -3]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.5623351446188083
<Window: 8 > X:[ -23 , -20 ] Y:[ -3 , 0 ]
Found Entropy: 0
\langle Window: 9 \rangle X: [-23, -20] Y: [0, 3]
Found Entropy: 0
<Window: 10 > X:[ -23 , -20 ] Y:[ 3 , 6 ]
Found Entropy: 0
\{\text{Window: } 11 > X:[-20, -17] \ Y:[-9, -6] \}
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 0.8675632284814612
\langle \text{Window: } 12 \rangle \text{ X: [} -20 , -17 ] \text{ Y: [} -6 , -3 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 13 > X:[ -20 , -17 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 14 > X:[ -20 , -17 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 15 > X:[ -20 , -17 ] Y:[ 3 , 6 ]
Found Entropy: 0
<Window: 16 > X:[ -17 , -14 ] Y:[ -9 , -6 ]
Found Entropy: 0
```

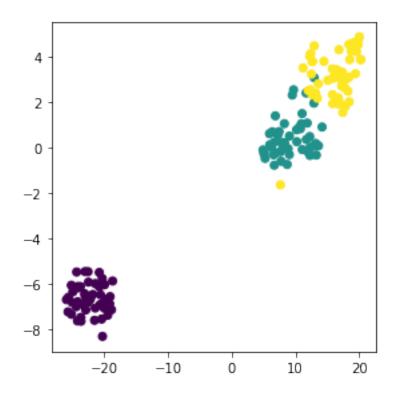
```
\langle \text{Window}: 17 > X: [-17, -14] Y: [-6, -3]
Found Entropy: 0
<Window: 18 > X:[ -17 , -14 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 19 > X:[ -17 , -14 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 20 > X:[ -17 , -14 ] Y:[ 3 , 6 ]
Found Entropy: 0
\{Window: 21 > X:[ -14 , -11 ] Y:[ -9 , -6 ]
Found Entropy: 0
\{Window: 22 > X:[ -14 , -11 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 23 > X:[ -14 , -11 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 24 > X:[ -14 , -11 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 25 > X:[-14, -11] Y:[3, 6]
Found Entropy: 0
\{Window: 26 \} X: [ -11 , -8 ] Y: [ -9 , -6 ]
Found Entropy: 0
<Window: 27 > X:[-11, -8] Y:[-6, -3]
Found Entropy: 0
\langle \text{Window: 28} \rangle X:[-11, -8] Y:[-3, 0]
Found Entropy: 0
\langle \text{Window}: 29 \rangle X: [-11, -8] Y: [0, 3]
Found Entropy: 0
<Window: 30 > X:[ -11 , -8 ] Y:[ 3 , 6 ]
Found Entropy: 0
<Window: 31 > X:[ -8 , -5 ] Y:[ -9 , -6 ]
Found Entropy: 0
\langle \text{Window}: 32 \rangle X: [-8, -5] Y: [-6, -3]
Found Entropy: 0
<Window: 33 > X:[ -8 , -5 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 34 > X:[ -8 , -5 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 35 > X:[ -8 , -5 ] Y:[ 3 , 6 ]
Found Entropy: 0
\{Window: 36 > X: [-5, -2] Y: [-9, -6]
Found Entropy: 0
<Window: 37 > X:[ -5 , -2 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 38 > X:[ -5 , -2 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 39 > X:[ -5 , -2 ] Y:[ 0 , 3 ]
Found Entropy: 0
\{\text{Window: } 40 > \text{X:} [-5, -2] \text{ Y:} [3, 6]
Found Entropy: 0
```

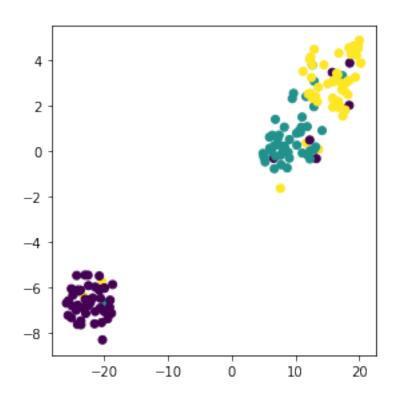
```
\{\text{Window: } 41 > X:[-2,1] \ Y:[-9,-6]
Found Entropy: 0
\{\text{Window: } 42 > X:[-2,1] Y:[-6,-3]
Found Entropy: 0
\{\text{Window: } 43 > X: [-2, 1] Y: [-3, 0]
Found Entropy: 0
\{\text{Window: } 44 > X: [-2, 1] Y: [0, 3]
Found Entropy: 0
\{\text{Window: } 45 > X: [-2, 1] Y: [3, 6]
Found Entropy: 0
<Window: 46 > X:[1, 4] Y:[-9, -6]
Found Entropy: 0
<Window: 47 > X:[1, 4] Y:[-6, -3]
Found Entropy: 0
<Window: 48 > X:[1, 4] Y:[-3, 0]
Found Entropy: 0
<Window: 49 > X:[1, 4] Y:[0, 3]
Found Entropy: 0
<Window: 50 > X:[ 1 , 4 ] Y:[ 3 , 6 ]
Found Entropy: 0
\langle \text{Window}: 51 \rangle X: [4, 7] Y: [-9, -6]
Found Entropy: 0
\{Window: 52 > X:[4,7] Y:[-6,-3]
Found Entropy: 0
\{\text{Window: 53} > X: [4, 7] Y: [-3, 0]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 1.0042424730540764
<Window: 54 > X:[4,7] Y:[0,3]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.6365141682948128
<Window: 55 > X:[4,7] Y:[3,6]
Found Entropy: 0
<Window: 56 > X:[ 7 , 10 ] Y:[ -9 , -6 ]
Found Entropy: 0
<Window: 57 > X:[ 7 , 10 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 58 > X:[7, 10] Y:[-3, 0]
```

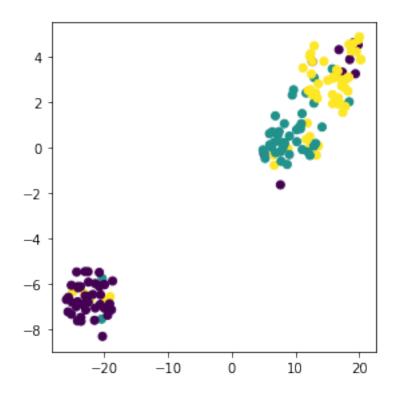
```
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.9556998911125343
<Window: 59 > X:[ 7 , 10 ] Y:[ 0 , 3 ]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 1.0888999753452238
<Window: 60 > X:[ 7 , 10 ] Y:[ 3 , 6 ]
Found Entropy: 0
<Window: 61 > X:[ 10 , 13 ] Y:[ -9 , -6 ]
Found Entropy: 0
\{\text{Window: } 62 > X: [10, 13] Y: [-6, -3]
Found Entropy: 0
\{\text{Window: 63} > X: [10, 13] Y: [-3, 0]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 64 > X:[ 10 , 13 ] Y:[ 0 , 3 ]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
```

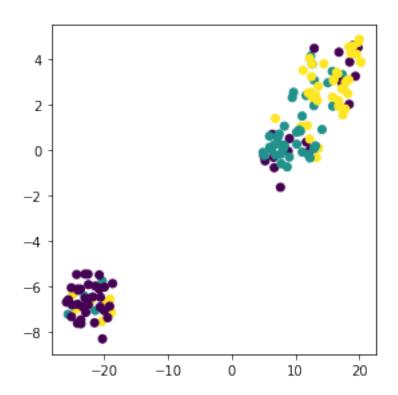
```
Found Entropy: 1.0433534269422904
<Window: 65 > X:[ 10 , 13 ] Y:[ 3 , 6 ]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.9743147528693494
<Window: 66 > X:[ 13 , 16 ] Y:[ -9 , -6 ]
Found Entropy: 0
<Window: 67 > X:[ 13 , 16 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 68 > X:[ 13 , 16 ] Y:[ -3 , 0 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 69 > X:[ 13 , 16 ] Y:[ 0 , 3 ]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.9368883075390159
<Window: 70 > X:[ 13 , 16 ] Y:[ 3 , 6 ]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.6365141682948128
\langle \text{Window}: 71 \rangle X: [16, 19] Y: [-9, -6]
Found Entropy: 0
\langle \text{Window}: 72 \rangle X: [16, 19] Y: [-6, -3]
Found Entropy: 0
<Window: 73 > X:[ 16 , 19 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 74 > X:[16, 19] Y:[0, 3]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
```

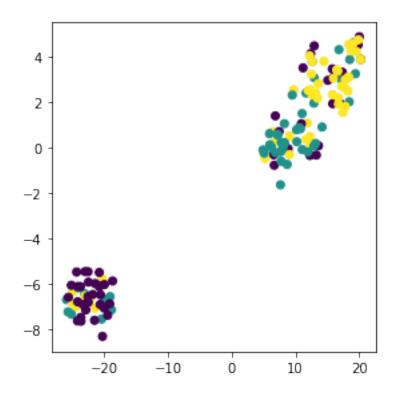
```
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.9949236325717752
<Window: 75 > X:[ 16 , 19 ] Y:[ 3 , 6 ]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.6730116670092565
\{\text{Window}: 76 > X: [19, 22] Y: [-9, -6]
Found Entropy: 0
\{\text{Window: } 77 > \text{X:} [19, 22] \text{ Y:} [-6, -3]
Found Entropy: 0
\{\text{Window: 78} > \text{X:[19,22]} \text{Y:[-3,0]}
Found Entropy: 0
<Window: 79 > X:[19, 22] Y:[0, 3]
Found Entropy: 0
\{\text{Window}: 80 > X: [19, 22] Y: [3, 6]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.6869615765973234
Total Count: 80
Expected Count: 80
OKAY: True
----Done--- 13.465812334559693
```

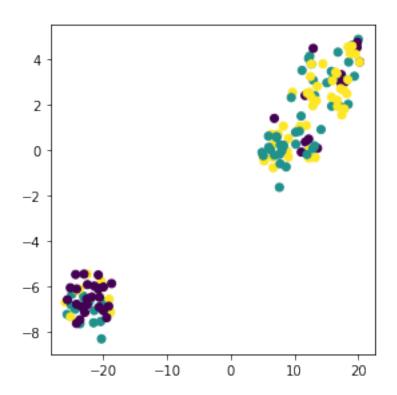


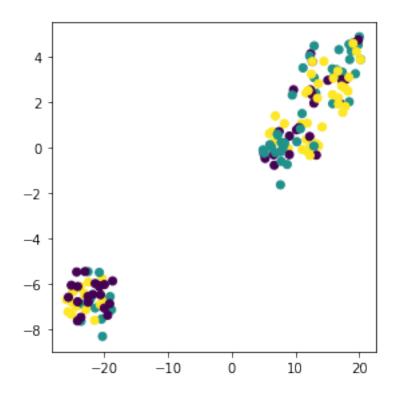


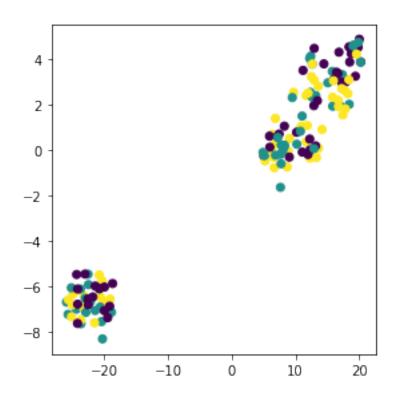


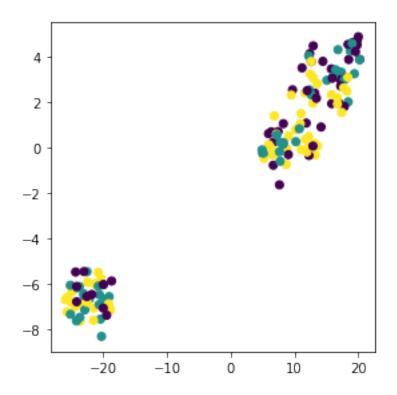


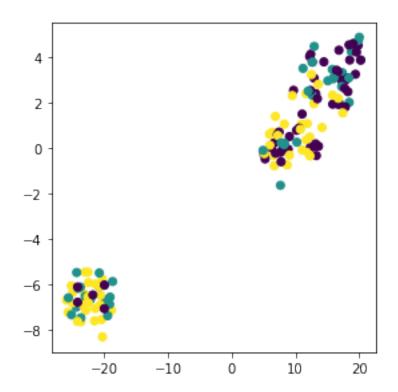




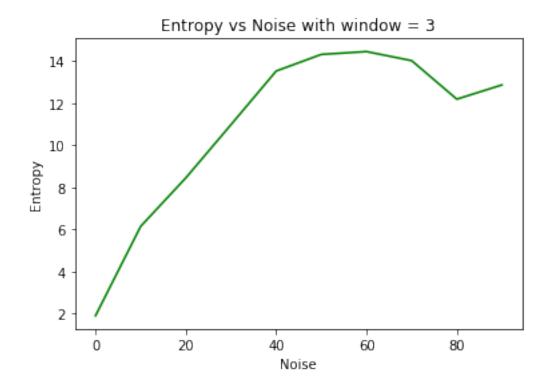








```
In [118]: xxxx
Out[118]: [0, 10, 20, 30, 40, 50, 60, 70, 80, 90]
In [119]: yyyy
Out[119]: [1.9059782130166705,
           5.833869503703472,
           8.146882998185937,
           10.507330121040468,
           13.927450011307299,
           14.301825684532538,
           12.619612365784652,
           15.087570013154586,
           13.689747163330022,
           13.465812334559693]
In [120]: plt.plot(x,y,'g')
          plt.xlabel('Noise')
          plt.ylabel('Entropy')
          plt.title('Entropy vs Noise with window = 3')
          plt.show()
```



```
for i in range(0,100,10):
               xxxx.append(i)
               yyyy.append(main(1,i))
Done!
-26 21 -9 5
You Can use this matrix now.
X \min = -26
X_max= 21
Y min= -9
Y_max= 5
And the Matrix Shape: 47 * 14
\{\text{Window: 1 > X:[-26,-25] Y:[-9,-8]}
Found Entropy: 0
\langle \text{Window: 2} \rangle \text{ X:[-26,-25] Y:[-8,-7]}
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window: 3} \rangle \text{ X:[-26,-25] Y:[-7,-6]}
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 4 \rangle X: [-26, -25] Y: [-6, -5]
Found Entropy: 0
\{Window: 5 > X:[ -26 , -25 ] Y:[ -5 , -4 ]
Found Entropy: 0
\{Window: 6 > X:[ -26 , -25 ] Y:[ -4 , -3 ]
Found Entropy: 0
\{Window: 7 > X:[ -26 , -25 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 8 > X:[ -26 , -25 ] Y:[ -2 , -1 ]
Found Entropy: 0
\forall x \in Y : [-26, -25] Y : [-1, 0]
Found Entropy: 0
<Window: 10 > X:[ -26 , -25 ] Y:[ 0 , 1 ]
Found Entropy: 0
\{\text{Window: } 11 > \text{X:} [-26, -25] \text{ Y:} [1, 2]
Found Entropy: 0
\langle \text{Window}: 12 \rangle X: [-26, -25] Y: [2, 3]
Found Entropy: 0
<Window: 13 > X:[ -26 , -25 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 14 > X:[ -26 , -25 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 15 \rangle X: [-25, -24] Y: [-9, -8]
Found Entropy: 0
```

```
\langle \text{Window}: 16 \rangle X: [-25, -24] Y: [-8, -7]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
<Window: 17 > X:[ -25 , -24 ] Y:[ -7 , -6 ]
Found a sample of class: 0
Found Entropy: 0.0
\{\text{Window: } 18 > \text{X:} [-25, -24] \text{ Y:} [-6, -5] \}
Found a sample of class: 0
Found Entropy: 0.0
\forall 19 > X:[-25, -24] Y:[-5, -4]
Found Entropy: 0
\langle \text{Window}: 20 \rangle X: [-25, -24] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 21 \rangle X: [-25, -24] Y: [-3, -2]
Found Entropy: 0
\{Window: 22 \} X: [ -25 , -24 ] Y: [ -2 , -1 ]
Found Entropy: 0
\langle \text{Window}: 23 \rangle X: [-25, -24] Y: [-1, 0]
Found Entropy: 0
\{\text{Window: } 24 > X: [-25, -24] \ Y: [0, 1]
Found Entropy: 0
\langle \text{Window}: 25 \rangle X: [-25, -24] Y: [1, 2]
Found Entropy: 0
<Window: 26 > X:[ -25 , -24 ] Y:[ 2 , 3 ]
Found Entropy: 0
\forall x \in X : [-25, -24] Y : [3, 4]
Found Entropy: 0
\langle \text{Window}: 28 \rangle X: [-25, -24] Y: [4, 5]
Found Entropy: 0
\{Window: 29 \} X: [ -24 , -23 ] Y: [ -9 , -8 ]
Found Entropy: 0
\langle \text{Window: } 30 \rangle \text{ X: [ } -24 \text{ , } -23 \text{ ] } \text{ Y: [ } -8 \text{ , } -7 \text{ ]}
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 31 \rangle X: [-24, -23] Y: [-7, -6]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 32 \rangle X: [-24, -23] Y: [-6, -5]
Found a sample of class: 0
Found Entropy: 0.0
```

```
\langle \text{Window}: 33 \rangle X: [-24, -23] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 34 \rangle X: [-24, -23] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 35 \rangle X: [-24, -23] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 36 \rangle X: [-24, -23] Y: [-2, -1]
Found Entropy: 0
<Window: 37 > X:[-24, -23] Y:[-1, 0]
Found Entropy: 0
\langle \text{Window}: 38 \rangle X: [-24, -23] Y: [0, 1]
Found Entropy: 0
\langle \text{Window: } 39 \rangle \text{ X:} [ -24 , -23 ] \text{ Y:} [ 1 , 2 ]
Found Entropy: 0
<Window: 40 > X:[ -24 , -23 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 41 > X:[ -24 , -23 ] Y:[ 3 , 4 ]
Found Entropy: 0
\{\text{Window: } 42 > X:[-24, -23] Y:[4, 5]
Found Entropy: 0
\langle \text{Window}: 43 \rangle X: [-23, -22] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 44 \rangle X: [-23, -22] Y: [-8, -7]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 45 > X:[ -23 , -22 ] Y:[ -7 , -6 ]
Found a sample of class: 0
Found Entropy: 0.0
\{\text{Window: } 46 > \text{X:} [-23, -22] \text{ Y:} [-6, -5] \}
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window: } 47 \rangle \text{ X: [ } -23 \text{ , } -22 \text{ ] } \text{ Y: [ } -5 \text{ , } -4 \text{ ]}
Found Entropy: 0
\langle \text{Window: } 48 \rangle \ \text{X:[} -23 \ , -22 \ ] \ \text{Y:[} -4 \ , -3 \ ]
Found Entropy: 0
\langle \text{Window: } 49 \rangle \ \text{X:[} -23 , -22 \ ] \ \text{Y:[} -3 , -2 \ ]
Found Entropy: 0
\langle \text{Window}: 50 \rangle X: [-23, -22] Y: [-2, -1]
Found Entropy: 0
\{\text{Window: 51} > \text{X:[-23,-22]} \text{Y:[-1,0]}
Found Entropy: 0
\langle \text{Window: 52} \rangle X:[-23, -22] Y:[0, 1]
Found Entropy: 0
\langle \text{Window: 53} \rangle X: [-23, -22] Y: [1, 2]
```

```
Found Entropy: 0
\forall x \in X : [-23, -22] Y : [2, 3]
Found Entropy: 0
\forall x \in X : [-23, -22] Y : [3, 4]
Found Entropy: 0
<Window: 56 > X:[-23, -22] Y:[4, 5]
Found Entropy: 0
\langle \text{Window: 57} \rangle \text{ X: [ -22 , -21 ] Y: [ -9 , -8 ]}
Found Entropy: 0
\langle \text{Window}: 58 \rangle X: [-22, -21] Y: [-8, -7]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 59 \rangle X: [-22, -21] Y: [-7, -6]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\{\text{Window: }60 > \text{X:}[-22, -21] \text{ Y:}[-6, -5]
Found Entropy: 0
\langle \text{Window}: 61 \rangle X: [-22, -21] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window: } 62 \rangle \text{ X: [ } -22 \text{ , } -21 \text{ ] } \text{ Y: [ } -4 \text{ , } -3 \text{ ]}
Found Entropy: 0
\{Window: 63 > X: [ -22 , -21 ] Y: [ -3 , -2 ]
Found Entropy: 0
\{\text{Window: } 64 > X: [-22, -21] \ Y: [-2, -1] \}
Found Entropy: 0
<Window: 65 > X:[ -22 , -21 ] Y:[ -1 , 0 ]
Found Entropy: 0
\langle \text{Window: } 66 \rangle \ X:[-22, -21] \ Y:[0, 1]
Found Entropy: 0
\langle \text{Window: } 67 \rangle X:[-22, -21] Y:[1, 2]
Found Entropy: 0
<Window: 68 > X:[ -22 , -21 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 69 > X:[ -22 , -21 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window: 70} \rangle \text{ X:[-22, -21] Y:[4,5]}
Found Entropy: 0
\langle \text{Window}: 71 > X:[-21, -20] Y:[-9, -8]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 72 > X:[ -21 , -20 ] Y:[ -8 , -7 ]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 73 \rangle X: [-21, -20] Y: [-7, -6]
```

```
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 74 \rangle X: [-21, -20] Y: [-6, -5]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 75 \rangle X: [-21, -20] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 76 \rangle X: [-21, -20] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 77 \rangle X: [-21, -20] Y: [-3, -2]
Found Entropy: 0
\{Window: 78 > X:[ -21 , -20 ] Y:[ -2 , -1 ]
Found Entropy: 0
\{Window: 79 \} X: [ -21 , -20 ] Y: [ -1 , 0 ]
Found Entropy: 0
<Window: 80 > X:[ -21 , -20 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 81 > X:[ -21 , -20 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window}: 82 \rangle X: [-21, -20] Y: [2, 3]
Found Entropy: 0
<Window: 83 > X:[ -21 , -20 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window: 84} \rangle X: [-21, -20] Y: [4, 5]
Found Entropy: 0
<Window: 85 > X:[ -20 , -19 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 86 > X:[ -20 , -19 ] Y:[ -8 , -7 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 87 > X:[ -20 , -19 ] Y:[ -7 , -6 ]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window: 88} \rangle \text{ X: [ -20 , -19 ] Y: [ -6 , -5 ]}
Found Entropy: 0
\{\text{Window: 89} > X: [-20, -19] Y: [-5, -4]
Found Entropy: 0
\forall 0 > X: [-20, -19] Y: [-4, -3]
Found Entropy: 0
```

```
\langle \text{Window: } 91 \rangle \ \text{X:[} -20 \ , -19 \ ] \ \text{Y:[} -3 \ , -2 \ ]
Found Entropy: 0
\langle \text{Window: } 92 \rangle \text{ X: [} -20 , -19 ] \text{ Y: [} -2 , -1 ]
Found Entropy: 0
<Window: 93 > X:[ -20 , -19 ] Y:[ -1 , 0 ]
Found Entropy: 0
\langle \text{Window: } 94 \rangle \text{ X: [ } -20 \text{ , } -19 \text{ ] } \text{ Y: [ } 0 \text{ , } 1 \text{ ]}
Found Entropy: 0
\{\text{Window: 95} > \text{X:[-20,-19]} \text{Y:[1,2]}
Found Entropy: 0
\langle \text{Window}: 96 \rangle X: [-20, -19] Y: [2, 3]
Found Entropy: 0
<Window: 97 > X:[ -20 , -19 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 98 > X:[ -20 , -19 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: 99} \rangle \text{ X:} [-19, -18] \text{ Y:} [-9, -8]
Found Entropy: 0
\{Window: 100 > X:[-19, -18] Y:[-8, -7]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 101 > X:[-19, -18] Y:[-7, -6]
Found Entropy: 0
\{Window: 102 > X:[-19, -18] Y:[-6, -5]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window: } 103 \rangle \text{ X:[} -19 \text{ , } -18 \text{] } \text{ Y:[} -5 \text{ , } -4 \text{]}
Found Entropy: 0
\forall \text{Window: } 104 > X:[-19, -18] Y:[-4, -3]
Found Entropy: 0
\langle \text{Window: } 105 \rangle \text{ X:[} -19 , -18 ] \text{ Y:[} -3 , -2 ]
Found Entropy: 0
\langle \text{Window}: 106 \rangle X: [-19, -18] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 107 > X:[-19, -18] Y:[-1, 0]
Found Entropy: 0
\langle Window: 108 \rangle X: [-19, -18] Y: [0, 1]
Found Entropy: 0
<Window: 109 > X:[ -19 , -18 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 110 > X:[ -19 , -18 ] Y:[ 2 , 3 ]
Found Entropy: 0
\langle \text{Window: } 111 \rangle \ \text{X:[} -19 \ , -18 \ ] \ \text{Y:[} 3 \ , 4 \ ]
Found Entropy: 0
\langle \text{Window: } 112 \rangle \ \text{X:[} -19 \ , -18 \ ] \ \text{Y:[} 4 \ , 5 \ ]
Found Entropy: 0
\langle \text{Window}: 113 \rangle X: [-18, -17] Y: [-9, -8]
Found Entropy: 0
```

```
\langle \text{Window: } 114 \rangle \text{ X:[} -18 , -17 ] \text{ Y:[} -8 , -7 ]
Found Entropy: 0
\langle \text{Window}: 115 \rangle X: [-18, -17] Y: [-7, -6]
Found Entropy: 0
\{Window: 116 \} X:[ -18 , -17 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 117 > X:[ -18 , -17 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 118 \rangle X: [-18, -17] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 119 \rangle X: [-18, -17] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window: } 120 \rangle \text{ X:[} -18 , -17 ] \text{ Y:[} -2 , -1 ]
Found Entropy: 0
<Window: 121 > X:[ -18 , -17 ] Y:[ -1 , 0 ]
Found Entropy: 0
\langle \text{Window: } 122 \rangle X:[-18, -17] Y:[0, 1]
Found Entropy: 0
<Window: 123 > X:[ -18 , -17 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 124 > X:[ -18 , -17 ] Y:[ 2 , 3 ]
Found Entropy: 0
\langle \text{Window: } 125 \rangle \text{ X:[} -18 , -17 ] \text{ Y:[} 3 , 4 ]
Found Entropy: 0
\langle \text{Window: } 126 \rangle \ \text{X:[} -18 \ , -17 \ ] \ \text{Y:[} 4 \ , 5 \ ]
Found Entropy: 0
\forall \text{Window: } 127 > X:[-17, -16] Y:[-9, -8]
Found Entropy: 0
<Window: 128 > X:[ -17 , -16 ] Y:[ -8 , -7 ]
Found Entropy: 0
\forall \text{Window: } 129 > X:[-17, -16] Y:[-7, -6]
Found Entropy: 0
\langle \text{Window: } 130 \rangle \text{ X:[} -17 , -16 ] \text{ Y:[} -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 131 \rangle X: [-17, -16] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 132 \rangle X: [-17, -16] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 133 \rangle X: [-17, -16] Y: [-3, -2]
Found Entropy: 0
<Window: 134 > X:[ -17 , -16 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 135 > X:[ -17 , -16 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 136 > X:[ -17 , -16 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 137 > X:[ -17 , -16 ] Y:[ 1 , 2 ]
Found Entropy: 0
```

```
\langle \text{Window: } 138 \rangle \ \text{X:[} -17 \ , -16 \ ] \ \text{Y:[} 2 \ , 3 \ ]
Found Entropy: 0
<Window: 139 > X:[ -17 , -16 ] Y:[ 3 , 4 ]
Found Entropy: 0
\{Window: 140 > X:[-17, -16] Y:[4, 5]
Found Entropy: 0
<Window: 141 > X:[ -16 , -15 ] Y:[ -9 , -8 ]
Found Entropy: 0
\{Window: 142 > X:[-16, -15] Y:[-8, -7]
Found Entropy: 0
\langle \text{Window}: 143 \rangle X: [-16, -15] Y: [-7, -6]
Found Entropy: 0
\forall \text{Window: } 144 > X:[-16, -15] Y:[-6, -5]
Found Entropy: 0
\langle \text{Window: } 145 \rangle \text{ X:[} -16 , -15 ] \text{ Y:[} -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 146 \rangle X: [-16, -15] Y: [-4, -3]
Found Entropy: 0
<Window: 147 > X:[ -16 , -15 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 148 > X:[ -16 , -15 ] Y:[ -2 , -1 ]
Found Entropy: 0
\langle \text{Window: } 149 \rangle \ \text{X:[} -16 \ , -15 \ ] \ \text{Y:[} -1 \ , \ 0 \ ]
Found Entropy: 0
\langle \text{Window: } 150 \rangle \text{ X:[} -16 , -15 ] \text{ Y:[} 0 , 1 ]
Found Entropy: 0
<Window: 151 > X:[ -16 , -15 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 152 > X:[ -16 , -15 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 153 > X:[ -16 , -15 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 154 > X:[ -16 , -15 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 155 > X:[ -15 , -14 ] Y:[ -9 , -8 ]
Found Entropy: 0
\{Window: 156 > X:[-15, -14] Y:[-8, -7]
Found Entropy: 0
\langle \text{Window}: 157 \rangle X: [-15, -14] Y: [-7, -6]
Found Entropy: 0
<Window: 158 > X:[ -15 , -14 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 159 > X:[ -15 , -14 ] Y:[ -5 , -4 ]
Found Entropy: 0
\forall Window: 160 > X:[ -15 , -14 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 161 > X:[ -15 , -14 ] Y:[ -3 , -2 ]
Found Entropy: 0
```

```
\langle \text{Window}: 162 \rangle X: [-15, -14] Y: [-2, -1]
Found Entropy: 0
<Window: 163 > X:[ -15 , -14 ] Y:[ -1 , 0 ]
Found Entropy: 0
\{Window: 164 > X: [ -15 , -14 ] Y: [ 0 , 1 ] 
Found Entropy: 0
<Window: 165 > X:[ -15 , -14 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 166 > X:[ -15 , -14 ] Y:[ 2 , 3 ]
Found Entropy: 0
\langle \text{Window}: 167 \rangle X: [-15, -14] Y: [3, 4]
Found Entropy: 0
<Window: 168 > X:[ -15 , -14 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 169 \rangle \ \text{X:[} -14 , -13 \ ] \ \text{Y:[} -9 , -8 \ ]
Found Entropy: 0
\langle \text{Window}: 170 > X:[-14, -13] Y:[-8, -7]
Found Entropy: 0
<Window: 171 > X:[ -14 , -13 ] Y:[ -7 , -6 ]
Found Entropy: 0
\langle \text{Window}: 172 \rangle X: [-14, -13] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 173 \rangle X: [-14, -13] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 174 \rangle X: [-14, -13] Y: [-4, -3]
Found Entropy: 0
\forall \text{Window: } 175 > X:[-14, -13] Y:[-3, -2]
Found Entropy: 0
\forall \text{Window: } 176 > X:[-14, -13] Y:[-2, -1]
Found Entropy: 0
\langle \text{Window: } 177 \rangle X:[-14, -13] Y:[-1, 0]
Found Entropy: 0
\langle \text{Window: } 178 \rangle X:[-14, -13] Y:[0, 1]
Found Entropy: 0
<Window: 179 > X:[ -14 , -13 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window}: 180 \rangle X: [-14, -13] Y: [2, 3]
Found Entropy: 0
<Window: 181 > X:[ -14 , -13 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 182 > X:[ -14 , -13 ] Y:[ 4 , 5 ]
Found Entropy: 0
\forall \text{Window: } 183 > X:[-13, -12] Y:[-9, -8]
Found Entropy: 0
\langle \text{Window}: 184 \rangle X: [-13, -12] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 185 \rangle X: [-13, -12] Y: [-7, -6]
Found Entropy: 0
```

```
\langle \text{Window: } 186 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} -6 \ , -5 \ ]
Found Entropy: 0
\langle \text{Window: } 187 \rangle \text{ X:[} -13 , -12 ] \text{ Y:[} -5 , -4 ]
Found Entropy: 0
\{Window: 188 > X: [ -13 , -12 ] Y: [ -4 , -3 ] 
Found Entropy: 0
\langle \text{Window: } 189 \rangle \text{ X: } [-13, -12] \text{ Y: } [-3, -2]
Found Entropy: 0
\{Window: 190 > X:[ -13 , -12 ] Y:[ -2 , -1 ]
Found Entropy: 0
\langle \text{Window}: 191 \rangle X: [-13, -12] Y: [-1, 0]
Found Entropy: 0
<Window: 192 > X:[ -13 , -12 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window: 193} \rangle X: [-13, -12] Y: [1, 2]
Found Entropy: 0
\langle \text{Window: } 194 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} 2 \ , 3 \ ]
Found Entropy: 0
<Window: 195 > X:[ -13 , -12 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 196 > X:[ -13 , -12 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 197 \rangle \ \text{X:[} -12 , -11 \ ] \ \text{Y:[} -9 , -8 \ ]
Found Entropy: 0
\langle \text{Window: } 198 \rangle \ \text{X:[} -12 \ , -11 \ ] \ \text{Y:[} -8 \ , -7 \ ]
Found Entropy: 0
\forall 199 > X:[-12, -11] Y:[-7, -6]
Found Entropy: 0
\langle \text{Window: } 200 \rangle \text{ X:[} -12 , -11 ] \text{ Y:[} -6 , -5 ]
Found Entropy: 0
\forall X:[-12, -11] Y:[-5, -4]
Found Entropy: 0
\langle \text{Window}: 202 \rangle X: [-12, -11] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 203 \rangle X: [-12, -11] Y: [-3, -2]
Found Entropy: 0
\{Window: 204 > X:[-12,-11] Y:[-2,-1] \}
Found Entropy: 0
\langle \text{Window}: 205 \rangle X: [-12, -11] Y: [-1, 0]
Found Entropy: 0
<Window: 206 > X:[ -12 , -11 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window: } 207 \rangle X:[-12, -11] Y:[1, 2]
Found Entropy: 0
\forall X: [-12, -11] Y: [2, 3]
Found Entropy: 0
<Window: 209 > X:[ -12 , -11 ] Y:[ 3 , 4 ]
Found Entropy: 0
```

```
\langle \text{Window}: 210 \rangle X: [-12, -11] Y: [4, 5]
Found Entropy: 0
\langle Window: 211 \rangle X:[-11, -10] Y:[-9, -8]
Found Entropy: 0
\{Window: 212 > X:[-11, -10] Y:[-8, -7]
Found Entropy: 0
<Window: 213 > X:[ -11 , -10 ] Y:[ -7 , -6 ]
Found Entropy: 0
\{Window: 214 > X:[-11, -10] Y:[-6, -5]
Found Entropy: 0
\forall Sindow: 215 > X:[ -11 , -10 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 216 \rangle X: [-11, -10] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 217 > X:[-11, -10] Y:[-3, -2]
Found Entropy: 0
\forall X:[-11, -10] Y:[-2, -1]
Found Entropy: 0
<Window: 219 > X:[ -11 , -10 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 220 > X:[ -11 , -10 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 221 > X:[ -11 , -10 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 222 > X:[ -11 , -10 ] Y:[ 2 , 3 ]
Found Entropy: 0
\langle \text{Window: } 223 \rangle X:[-11, -10] Y:[3, 4]
Found Entropy: 0
\langle \text{Window}: 224 \rangle X: [-11, -10] Y: [4, 5]
Found Entropy: 0
\langle \text{Window}: 225 \rangle X:[-10, -9] Y:[-9, -8]
Found Entropy: 0
\langle \text{Window}: 226 \rangle X:[-10, -9] Y:[-8, -7]
Found Entropy: 0
\langle \text{Window}: 227 \rangle X: [-10, -9] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 228 \rangle X: [-10, -9] Y: [-6, -5]
Found Entropy: 0
<Window: 229 > X:[ -10 , -9 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 230 \rangle X: [-10, -9] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window: } 231 \rangle \text{ X:[} -10 , -9 ] \text{ Y:[} -3 , -2 ]
Found Entropy: 0
\langle \text{Window}: 232 \rangle X:[-10, -9] Y:[-2, -1]
Found Entropy: 0
\langle \text{Window: } 233 \rangle X: [-10, -9] Y: [-1, 0]
Found Entropy: 0
```

```
<Window: 234 > X:[ -10 , -9 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 235 > X:[ -10 , -9 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window}: 236 \rangle X: [-10, -9] Y: [2, 3]
Found Entropy: 0
<Window: 237 > X:[ -10 , -9 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window}: 238 \rangle X: [-10, -9] Y: [4, 5]
Found Entropy: 0
\langle \text{Window}: 239 \rangle X: [-9, -8] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window: } 240 \rangle \text{ X:[} -9 , -8 ] \text{ Y:[} -8 , -7 ]
Found Entropy: 0
\langle \text{Window: } 241 \rangle \ \text{X:[} -9 \ , -8 \ ] \ \text{Y:[} -7 \ , -6 \ ]
Found Entropy: 0
\langle \text{Window: } 242 \rangle \text{ X:[} -9 , -8 ] \text{ Y:[} -6 , -5 ]
Found Entropy: 0
<Window: 243 > X:[ -9 , -8 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 244 \rangle X: [-9, -8] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window: } 245 \rangle \ \text{X:[} -9 \ , -8 \ ] \ \text{Y:[} -3 \ , -2 \ ]
Found Entropy: 0
\langle \text{Window}: 246 \rangle X: [-9, -8] Y: [-2, -1]
Found Entropy: 0
<Window: 247 > X:[-9, -8] Y:[-1, 0]
Found Entropy: 0
<Window: 248 > X:[ -9 , -8 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 249 \rangle X:[-9, -8] Y:[1, 2]
Found Entropy: 0
\langle \text{Window}: 250 \rangle X:[-9, -8] Y:[2, 3]
Found Entropy: 0
\langle \text{Window}: 251 \rangle X: [-9, -8] Y: [3, 4]
Found Entropy: 0
<Window: 252 > X:[ -9 , -8 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 253 \rangle X: [-8, -7] Y: [-9, -8]
Found Entropy: 0
<Window: 254 > X:[ -8 , -7 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window}: 255 \rangle X: [-8, -7] Y: [-7, -6]
Found Entropy: 0
<Window: 256 > X:[ -8 , -7 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 257 > X:[ -8 , -7 ] Y:[ -5 , -4 ]
Found Entropy: 0
```

```
\langle \text{Window}: 258 \rangle X: [-8, -7] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 259 \rangle X: [-8, -7] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 260 \rangle X: [-8, -7] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 261 \rangle X: [-8, -7] Y: [-1, 0]
Found Entropy: 0
\langle \text{Window}: 262 \rangle X: [-8, -7] Y: [0, 1]
Found Entropy: 0
<Window: 263 > X:[ -8 , -7 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 264 > X:[ -8 , -7 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 265 > X:[ -8 , -7 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 266 > X:[ -8 , -7 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 267 > X:[ -7 , -6 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 268 > X:[ -7 , -6 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window: } 269 \rangle \ \text{X:[} -7 \ , -6 \ ] \ \text{Y:[} -7 \ , -6 \ ]
Found Entropy: 0
\langle \text{Window: } 270 \rangle \text{ X:[} -7 , -6 ] \text{ Y:[} -6 , -5 ]
Found Entropy: 0
\forall x \in X : [-7, -6] Y : [-5, -4]
Found Entropy: 0
\langle \text{Window}: 272 \rangle X:[-7,-6] Y:[-4,-3]
Found Entropy: 0
\langle \text{Window}: 273 \rangle X: [-7, -6] Y: [-3, -2]
Found Entropy: 0
\forall x = 1 
Found Entropy: 0
\langle \text{Window}: 275 \rangle X: [-7, -6] Y: [-1, 0]
Found Entropy: 0
\langle \text{Window}: 276 \rangle X: [-7, -6] Y: [0, 1]
Found Entropy: 0
\langle \text{Window}: 277 > X:[-7,-6] Y:[1,2]
Found Entropy: 0
<Window: 278 > X:[-7, -6] Y:[2, 3]
Found Entropy: 0
<Window: 279 > X:[ -7 , -6 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 280 > X:[ -7 , -6 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 281 > X:[-6,-5] Y:[-9,-8]
Found Entropy: 0
```

```
\langle \text{Window: } 282 \rangle \text{ X:} [ -6 , -5 ] \text{ Y:} [ -8 , -7 ]
Found Entropy: 0
\langle \text{Window: 283} \rangle X: [-6, -5] Y: [-7, -6]
Found Entropy: 0
\{Window: 284 > X: [ -6 , -5 ] Y: [ -6 , -5 ] <math>\}
Found Entropy: 0
\langle \text{Window}: 285 \rangle X: [-6, -5] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 286 \rangle X: [-6, -5] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 287 \rangle X: [-6, -5] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window: 288} \rangle X: [-6, -5] Y: [-2, -1]
Found Entropy: 0
<Window: 289 > X:[ -6 , -5 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 290 > X:[ -6 , -5 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 291 > X:[ -6 , -5 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 292 > X:[ -6 , -5 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 293 > X:[ -6 , -5 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 294 > X:[ -6 , -5 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 295 \rangle X: [ -5 , -4 ] Y: [ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 296 \rangle X: [-5, -4] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window: } 297 \rangle X:[-5, -4] Y:[-7, -6]
Found Entropy: 0
\langle \text{Window: } 298 \rangle \ \text{X:[} -5 \ , -4 \ ] \ \text{Y:[} -6 \ , -5 \ ]
Found Entropy: 0
\langle \text{Window}: 299 \rangle X: [-5, -4] Y: [-5, -4]
Found Entropy: 0
<Window: 300 > X:[ -5 , -4 ] Y:[ -4 , -3 ]
Found Entropy: 0
\{Window: 301 > X:[ -5 , -4 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 302 > X:[ -5 , -4 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 303 > X:[-5, -4] Y:[-1, 0]
Found Entropy: 0
<Window: 304 > X:[ -5 , -4 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 305 > X:[ -5 , -4 ] Y:[ 1 , 2 ]
Found Entropy: 0
```

```
<Window: 306 > X:[ -5 , -4 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 307 > X:[ -5 , -4 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 308 > X:[ -5 , -4 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 309 \rangle X: [-4, -3] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 310 \rangle X: [-4, -3] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 311 \rangle X: [-4, -3] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 312 \rangle X: [-4, -3] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 313 \rangle X: [-4, -3] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 314 \rangle X: [-4, -3] Y: [-4, -3]
Found Entropy: 0
<Window: 315 > X:[ -4 , -3 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window}: 316 \rangle X: [-4, -3] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window: } 317 \rangle \text{ X: [ } -4 \text{ , } -3 \text{ ] } \text{ Y: [ } -1 \text{ , } 0 \text{ ]}
Found Entropy: 0
<Window: 318 > X:[ -4 , -3 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 319 \rangle X: [-4, -3] Y: [1, 2]
Found Entropy: 0
\langle \text{Window}: 320 \rangle X: [-4, -3] Y: [2, 3]
Found Entropy: 0
\langle \text{Window}: 321 \rangle X: [-4, -3] Y: [3, 4]
Found Entropy: 0
\langle \text{Window}: 322 \rangle X: [-4, -3] Y: [4, 5]
Found Entropy: 0
\langle \text{Window}: 323 \rangle X: [-3, -2] Y: [-9, -8]
Found Entropy: 0
\{Window: 324 > X:[-3,-2] Y:[-8,-7]
Found Entropy: 0
\langle \text{Window}: 325 \rangle X: [-3, -2] Y: [-7, -6]
Found Entropy: 0
<Window: 326 > X:[ -3 , -2 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 327 \rangle X:[-3, -2] Y:[-5, -4]
Found Entropy: 0
<Window: 328 > X:[ -3 , -2 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 329 \rangle X:[-3,-2] Y:[-3,-2]
Found Entropy: 0
```

```
\langle \text{Window}: 330 \rangle X: [-3, -2] Y: [-2, -1]
Found Entropy: 0
<Window: 331 > X:[ -3 , -2 ] Y:[ -1 , 0 ]
Found Entropy: 0
\langle \text{Window}: 332 \rangle X: [-3, -2] Y: [0, 1]
Found Entropy: 0
\langle \text{Window}: 333 \rangle X: [-3, -2] Y: [1, 2]
Found Entropy: 0
\{\text{Window: } 334 > X:[-3,-2] Y:[2,3]
Found Entropy: 0
<Window: 335 > X:[ -3 , -2 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 336 > X:[ -3 , -2 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 337 \rangle \text{ X:[} -2 , -1 ] \text{ Y:[} -9 , -8 ]
Found Entropy: 0
<Window: 338 > X:[ -2 , -1 ] Y:[ -8 , -7 ]
Found Entropy: 0
\forall X: [-2, -1] \ Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 340 \rangle X: [-2, -1] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window: } 341 \rangle \ \text{X:[} -2 \ , -1 \ ] \ \text{Y:[} -5 \ , -4 \ ]
Found Entropy: 0
\langle \text{Window}: 342 \rangle X: [-2, -1] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 343 \rangle X: [-2, -1] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 344 \rangle X: [-2, -1] Y: [-2, -1]
Found Entropy: 0
<Window: 345 > X:[-2, -1] Y:[-1, 0]
Found Entropy: 0
<Window: 346 > X:[ -2 , -1 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 347 > X: [-2, -1] Y: [1, 2]
Found Entropy: 0
\langle \text{Window}: 348 \rangle X: [-2, -1] Y: [2, 3]
Found Entropy: 0
\langle \text{Window}: 349 \rangle X: [-2, -1] Y: [3, 4]
Found Entropy: 0
<Window: 350 > X:[-2, -1] Y:[4, 5]
Found Entropy: 0
<Window: 351 > X:[-1, 0] Y:[-9, -8]
Found Entropy: 0
\langle \text{Window}: 352 \rangle X: [-1, 0] Y: [-8, -7]
Found Entropy: 0
<Window: 353 > X:[ -1 , 0 ] Y:[ -7 , -6 ]
Found Entropy: 0
```

```
<Window: 354 > X:[ -1 , 0 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 355 > X:[-1, 0] Y:[-5, -4]
Found Entropy: 0
<Window: 356 > X:[-1, 0] Y:[-4, -3]
Found Entropy: 0
\langle \text{Window}: 357 \rangle X: [-1, 0] Y: [-3, -2]
Found Entropy: 0
<Window: 358 > X:[ -1 , 0 ] Y:[ -2 , -1 ]
Found Entropy: 0
\langle Window: 359 \rangle X: [-1, 0] Y: [-1, 0]
Found Entropy: 0
<Window: 360 > X:[-1, 0] Y:[0, 1]
Found Entropy: 0
<Window: 361 > X:[ -1 , 0 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 362 > X:[ -1 , 0 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 363 > X:[-1, 0] Y:[3, 4]
Found Entropy: 0
<Window: 364 > X:[-1, 0] Y:[4, 5]
Found Entropy: 0
<Window: 365 > X:[ 0 , 1 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 366 > X:[ 0 , 1 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 367 > X:[ 0 , 1 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 368 > X:[ 0 , 1 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 369 > X:[ 0 , 1 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 370 > X:[ 0 , 1 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 371 > X:[0,1] Y:[-3,-2]
Found Entropy: 0
\{\text{Window: } 372 > X:[0,1] Y:[-2,-1]
Found Entropy: 0
<Window: 373 > X:[0, 1] Y:[-1, 0]
Found Entropy: 0
<Window: 374 > X:[0, 1] Y:[0, 1]
Found Entropy: 0
<Window: 375 > X:[ 0 , 1 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 376 > X:[0, 1] Y:[2, 3]
Found Entropy: 0
<Window: 377 > X:[0, 1] Y:[3, 4]
Found Entropy: 0
```

```
<Window: 378 > X:[ 0 , 1 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 379 > X:[1,2] Y:[-9,-8]
Found Entropy: 0
\{\text{Window: } 380 > \text{X:} [1, 2] \text{ Y:} [-8, -7] \}
Found Entropy: 0
\{\text{Window: } 381 > X:[1,2] Y:[-7,-6]
Found Entropy: 0
\{\text{Window: } 382 > X:[1,2] Y:[-6,-5]
Found Entropy: 0
\langle \text{Window}: 383 \rangle X: [1, 2] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 384 \rangle X: [1, 2] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 385 \rangle X: [1, 2] Y: [-3, -2]
Found Entropy: 0
<Window: 386 > X:[ 1 , 2 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 387 > X:[1, 2] Y:[-1, 0]
Found Entropy: 0
<Window: 388 > X:[ 1 , 2 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 389 > X:[ 1 , 2 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 390 > X:[ 1 , 2 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 391 > X:[ 1 , 2 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window}: 392 \rangle X:[1,2] Y:[4,5]
Found Entropy: 0
\langle \text{Window}: 393 \rangle X: [2, 3] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 394 \rangle X: [2, 3] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 395 \rangle X: [2, 3] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 396 \rangle X: [2, 3] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 397 \rangle X: [2, 3] Y: [-5, -4]
Found Entropy: 0
<Window: 398 > X:[ 2 , 3 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 399 \rangle X: [2, 3] Y: [-3, -2]
Found Entropy: 0
<Window: 400 > X:[ 2 , 3 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 401 > X:[2,3] Y:[-1,0]
Found Entropy: 0
```

```
<Window: 402 > X:[2,3] Y:[0,1]
Found Entropy: 0
<Window: 403 > X:[ 2 , 3 ] Y:[ 1 , 2 ]
Found Entropy: 0
\{\text{Window: } 404 > X: [2, 3] Y: [2, 3]
Found Entropy: 0
<Window: 405 > X:[2,3] Y:[3,4]
Found Entropy: 0
<Window: 406 > X:[2,3] Y:[4,5]
Found Entropy: 0
<Window: 407 > X:[3, 4] Y:[-9, -8]
Found Entropy: 0
<Window: 408 > X:[3,4] Y:[-8,-7]
Found Entropy: 0
<Window: 409 > X:[3,4] Y:[-7,-6]
Found Entropy: 0
<Window: 410 > X:[ 3 , 4 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 411 > X:[ 3 , 4 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 412 > X:[ 3 , 4 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 413 \rangle X: [3, 4] Y: [-3, -2]
Found Entropy: 0
<Window: 414 > X:[ 3 , 4 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 415 > X:[3, 4] Y:[-1, 0]
Found Entropy: 0
<Window: 416 > X:[ 3 , 4 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 417 > X:[3, 4] Y:[1, 2]
Found Entropy: 0
<Window: 418 > X:[3, 4] Y:[2, 3]
Found Entropy: 0
<Window: 419 > X:[ 3 , 4 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 420 > X:[ 3 , 4 ] Y:[ 4 , 5 ]
Found Entropy: 0
\{\text{Window: } 421 > X: [4, 5] Y: [-9, -8]
Found Entropy: 0
<Window: 422 > X:[4,5] Y:[-8,-7]
Found Entropy: 0
\{\text{Window: } 423 > X: [4, 5] Y: [-7, -6]
Found Entropy: 0
<Window: 424 > X:[4,5] Y:[-6,-5]
Found Entropy: 0
<Window: 425 > X:[ 4 , 5 ] Y:[ -5 , -4 ]
Found Entropy: 0
```

```
<Window: 426 > X:[ 4 , 5 ] Y:[ -4 , -3 ]
Found Entropy: 0
\{\text{Window: } 427 > X:[4,5] Y:[-3,-2]
Found Entropy: 0
\{\text{Window: } 428 > X: [4, 5] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 429 \rangle X: [4, 5] Y: [-1, 0]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 430 > X:[ 4 , 5 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 431 > X:[ 4 , 5 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 432 > X:[ 4 , 5 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 433 > X:[4,5] Y:[3,4]
Found Entropy: 0
<Window: 434 > X:[4,5] Y:[4,5]
Found Entropy: 0
<Window: 435 > X:[5,6] Y:[-9,-8]
Found Entropy: 0
<Window: 436 > X:[5,6] Y:[-8,-7]
Found Entropy: 0
\{\text{Window: } 437 > X: [5, 6] Y: [-7, -6]
Found Entropy: 0
\langle Window: 438 \rangle X: [5, 6] Y: [-6, -5]
Found Entropy: 0
<Window: 439 > X:[5,6] Y:[-5,-4]
Found Entropy: 0
<Window: 440 > X:[5,6] Y:[-4,-3]
Found Entropy: 0
<Window: 441 > X:[5,6] Y:[-3,-2]
Found Entropy: 0
\{\text{Window: } 442 > X: [5, 6] Y: [-2, -1]
Found Entropy: 0
<Window: 443 > X:[5,6] Y:[-1,0]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 444 > X:[5,6] Y:[0,1]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 445 > X:[ 5 , 6 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 446 > X:[5,6] Y:[2,3]
Found Entropy: 0
```

```
<Window: 447 > X:[5,6] Y:[3,4]
Found Entropy: 0
<Window: 448 > X:[5,6] Y:[4,5]
Found Entropy: 0
<Window: 449 > X:[6,7] Y:[-9,-8]
Found Entropy: 0
<Window: 450 > X:[6,7] Y:[-8,-7]
Found Entropy: 0
\{\text{Window: } 451 > X: [6, 7] Y: [-7, -6]
Found Entropy: 0
\{\text{Window}: 452 > X: [6, 7] Y: [-6, -5]\}
Found Entropy: 0
<Window: 453 > X:[ 6 , 7 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 454 > X:[6,7] Y:[-4,-3]
Found Entropy: 0
<Window: 455 > X:[ 6 , 7 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 456 > X:[6, 7] Y:[-2, -1]
Found Entropy: 0
<Window: 457 > X:[6,7] Y:[-1,0]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 458 > X:[6, 7] Y:[0, 1]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 459 > X:[6,7] Y:[1,2]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 460 > X:[6, 7] Y:[2, 3]
Found Entropy: 0
<Window: 461 > X:[6, 7] Y:[3, 4]
Found Entropy: 0
<Window: 462 > X:[ 6 , 7 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 463 > X:[ 7 , 8 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 464 > X:[7,8] Y:[-8,-7]
Found Entropy: 0
<Window: 465 > X:[7,8] Y:[-7,-6]
Found Entropy: 0
<Window: 466 > X:[ 7 , 8 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 467 > X:[7,8] Y:[-5,-4]
```

```
Found Entropy: 0
<Window: 468 > X:[7,8] Y:[-4,-3]
Found Entropy: 0
<Window: 469 > X:[7,8] Y:[-3,-2]
Found Entropy: 0
<Window: 470 > X:[7,8] Y:[-2,-1]
Found a sample of class: 2
Found Entropy: 0.0
\langle Window: 471 \rangle X:[7,8] Y:[-1,0]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 472 > X:[7,8]Y:[0,1]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 473 > X:[7,8] Y:[1,2]
Found Entropy: 0
<Window: 474 > X:[7,8] Y:[2,3]
Found Entropy: 0
<Window: 475 > X:[ 7 , 8 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 476 > X:[ 7 , 8 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 477 > X:[8,9] Y:[-9,-8]
Found Entropy: 0
<Window: 478 > X:[8,9] Y:[-8,-7]
Found Entropy: 0
<Window: 479 > X:[8,9] Y:[-7,-6]
Found Entropy: 0
<Window: 480 > X:[8,9] Y:[-6,-5]
Found Entropy: 0
\langle \text{Window}: 481 \rangle X: [8, 9] Y: [-5, -4]
Found Entropy: 0
\{\text{Window: } 482 > X:[8,9] Y:[-4,-3]
Found Entropy: 0
\{\text{Window: } 483 > X: [8, 9] Y: [-3, -2]
Found Entropy: 0
<Window: 484 > X:[8, 9] Y:[-2, -1]
Found Entropy: 0
<Window: 485 > X:[8,9] Y:[-1,0]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 486 > X:[ 8 , 9 ] Y:[ 0 , 1 ]
```

```
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 487 > X:[8, 9] Y:[1, 2]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 488 > X:[ 8 , 9 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 489 > X:[8, 9] Y:[3, 4]
Found Entropy: 0
<Window: 490 > X:[ 8 , 9 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 491 > X:[ 9 , 10 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 492 > X:[ 9 , 10 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 493 > X:[ 9 , 10 ] Y:[ -7 , -6 ]
Found Entropy: 0
\forall 1000 : 494 > X:[9, 10] Y:[-6, -5]
Found Entropy: 0
<Window: 495 > X:[ 9 , 10 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 496 > X:[ 9 , 10 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 497 > X:[ 9 , 10 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 498 > X:[ 9 , 10 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 499 > X:[ 9 , 10 ] Y:[ -1 , 0 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 500 > X:[ 9 , 10 ] Y:[ 0 , 1 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 501 > X:[ 9 , 10 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 502 > X:[ 9 , 10 ] Y:[ 2 , 3 ]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 503 > X:[ 9 , 10 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 504 > X:[ 9 , 10 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 505 > X:[ 10 , 11 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 506 > X:[ 10 , 11 ] Y:[ -8 , -7 ]
Found Entropy: 0
```

```
<Window: 507 > X:[ 10 , 11 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 508 > X:[ 10 , 11 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 509 > X:[ 10 , 11 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 510 \rangle X: [10, 11] Y: [-4, -3]
Found Entropy: 0
\{Window: 511 > X:[10, 11] Y:[-3, -2]
Found Entropy: 0
\forall X:[10, 11] Y:[-2, -1]
Found Entropy: 0
<Window: 513 > X:[ 10 , 11 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 514 > X:[ 10 , 11 ] Y:[ 0 , 1 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 515 > X:[ 10 , 11 ] Y:[ 1 , 2 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 516 > X:[ 10 , 11 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 517 > X:[ 10 , 11 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 518 > X:[ 10 , 11 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 519 > X:[ 11 , 12 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 520 > X:[ 11 , 12 ] Y:[ -8 , -7 ]
Found Entropy: 0
\{Window: 521 > X:[11, 12] Y:[-7, -6]
Found Entropy: 0
<Window: 522 > X:[ 11 , 12 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 523 > X:[ 11 , 12 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 524 > X:[ 11 , 12 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 525 \rangle X: [11, 12] Y: [-3, -2]
Found Entropy: 0
<Window: 526 > X:[ 11 , 12 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 527 > X:[ 11 , 12 ] Y:[ -1 , 0 ]
Found a sample of class: 1
Found a sample of class: 1
```

```
Found Entropy: 0.0
<Window: 528 > X:[ 11 , 12 ] Y:[ 0 , 1 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 529 > X:[ 11 , 12 ] Y:[ 1 , 2 ]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 530 > X:[ 11 , 12 ] Y:[ 2 , 3 ]
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 531 > X:[ 11 , 12 ] Y:[ 3 , 4 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 532 > X:[ 11 , 12 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: 533} \rangle X: [12, 13] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 534 \rangle X: [12, 13] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window: 535} \rangle X: [12, 13] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 536 \rangle X: [12, 13] Y: [-6, -5]
Found Entropy: 0
\forall Sindow: 537 > X:[ 12 , 13 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window: 538} \rangle \text{ X:[ 12 , 13 ] Y:[ -4 , -3 ]}
Found Entropy: 0
<Window: 539 > X:[ 12 , 13 ] Y:[ -3 , -2 ]
Found Entropy: 0
\forall \text{Window: } 540 > X:[12, 13] Y:[-2, -1]
Found Entropy: 0
<Window: 541 > X:[12, 13] Y:[-1, 0]
Found a sample of class: 1
Found Entropy: 0.0
\langle Window: 542 \rangle X: [12, 13] Y: [0, 1]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 543 > X:[ 12 , 13 ] Y:[ 1 , 2 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 544 > X:[ 12 , 13 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
```

```
<Window: 545 > X:[ 12 , 13 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.5623351446188083
<Window: 546 > X:[ 12 , 13 ] Y:[ 4 , 5 ]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
\langle \text{Window: 547} \rangle \text{ X:[ 13 , 14 ] Y:[ -9 , -8 ]}
Found Entropy: 0
\langle \text{Window: 548} \rangle \text{ X:[ 13 , 14 ] Y:[ -8 , -7 ]}
Found Entropy: 0
\langle \text{Window: 549} \rangle X: [13, 14] Y: [-7, -6]
Found Entropy: 0
<Window: 550 > X:[ 13 , 14 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 551 > X:[ 13 , 14 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 552 > X:[ 13 , 14 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 553 \rangle X: [13, 14] Y: [-3, -2]
Found Entropy: 0
\forall Window: 554 > X:[ 13 , 14 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 555 > X:[ 13 , 14 ] Y:[ -1 , 0 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 556 > X:[ 13 , 14 ] Y:[ 0 , 1 ]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 557 > X:[ 13 , 14 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 558 > X:[ 13 , 14 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 559 > X:[ 13 , 14 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 560 > X:[ 13 , 14 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 561 > X:[ 14 , 15 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 562 \rangle X: [14, 15] Y: [-8, -7]
```

```
Found Entropy: 0
<Window: 563 > X:[14, 15] Y:[-7, -6]
Found Entropy: 0
<Window: 564 > X:[ 14 , 15 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 565 > X:[14, 15] Y:[-5, -4]
Found Entropy: 0
<Window: 566 > X:[ 14 , 15 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 567 > X:[ 14 , 15 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 568 > X:[ 14 , 15 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 569 > X:[ 14 , 15 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 570 > X:[ 14 , 15 ] Y:[ 0 , 1 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 571 > X:[ 14 , 15 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 572 > X:[ 14 , 15 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 573 > X:[ 14 , 15 ] Y:[ 3 , 4 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 574 > X:[ 14 , 15 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: 575} \rangle X: [15, 16] Y: [-9, -8]
Found Entropy: 0
<Window: 576 > X:[ 15 , 16 ] Y:[ -8 , -7 ]
Found Entropy: 0
\forall x \in X : [15, 16] Y : [-7, -6]
Found Entropy: 0
\langle \text{Window}: 578 \rangle X: [15, 16] Y: [-6, -5]
Found Entropy: 0
<Window: 579 > X:[ 15 , 16 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window: 580} \rangle \text{ X:} [15, 16] \text{ Y:} [-4, -3]
Found Entropy: 0
<Window: 581 > X:[ 15 , 16 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window: 582} \rangle X: [15, 16] Y: [-2, -1]
Found Entropy: 0
<Window: 583 > X:[ 15 , 16 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 584 > X:[ 15 , 16 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 585 > X:[ 15 , 16 ] Y:[ 1 , 2 ]
```

```
Found a sample of class: 2
Found Entropy: 0.0
<Window: 586 > X:[ 15 , 16 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 587 > X:[ 15 , 16 ] Y:[ 3 , 4 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 588 > X:[ 15 , 16 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 589 > X:[ 16 , 17 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 590 > X:[ 16 , 17 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 591 > X:[ 16 , 17 ] Y:[ -7 , -6 ]
Found Entropy: 0
\forall X: [16, 17] Y: [-6, -5]
Found Entropy: 0
<Window: 593 > X:[ 16 , 17 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window: } 594 \rangle \text{ X:} [ 16 , 17 ] \text{ Y:} [ -4 , -3 ]
Found Entropy: 0
<Window: 595 > X:[ 16 , 17 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 596 > X:[ 16 , 17 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 597 > X:[ 16 , 17 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 598 > X:[ 16 , 17 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 599 > X:[ 16 , 17 ] Y:[ 1 , 2 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 600 > X:[ 16 , 17 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 601 > X:[ 16 , 17 ] Y:[ 3 , 4 ]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 602 > X:[ 16 , 17 ] Y:[ 4 , 5 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 603 > X:[ 17 , 18 ] Y:[ -9 , -8 ]
```

```
Found Entropy: 0
<Window: 604 > X:[ 17 , 18 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 605 > X:[ 17 , 18 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 606 > X:[ 17 , 18 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 607 \rangle \text{ X:} [17, 18] \text{ Y:} [-5, -4]
Found Entropy: 0
<Window: 608 > X:[ 17 , 18 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 609 \rangle \ \text{X:[} 17 , 18 \ ] \ \text{Y:[} -3 , -2 \ ]
Found Entropy: 0
\langle \text{Window: 610} \rangle X: [17, 18] Y: [-2, -1]
Found Entropy: 0
<Window: 611 > X:[ 17 , 18 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 612 > X:[ 17 , 18 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 613 > X:[ 17 , 18 ] Y:[ 1 , 2 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 614 > X:[ 17 , 18 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 615 > X:[ 17 , 18 ] Y:[ 3 , 4 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 616 > X:[ 17 , 18 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 617 > X:[ 18 , 19 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window: 618} \rangle X: [18, 19] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window: 619} \rangle X: [18, 19] Y: [-7, -6]
Found Entropy: 0
\{Window: 620 > X:[ 18 , 19 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 621 \rangle X:[18, 19] Y:[-5, -4]
Found Entropy: 0
\langle \text{Window: } 622 \rangle \text{ X:} [ 18 , 19 ] \text{ Y:} [ -4 , -3 ]
Found Entropy: 0
<Window: 623 > X:[ 18 , 19 ] Y:[ -3 , -2 ]
Found Entropy: 0
```

```
\langle \text{Window: } 624 \rangle \text{ X:} [ 18 , 19 ] \text{ Y:} [ -2 , -1 ]
Found Entropy: 0
<Window: 625 > X:[ 18 , 19 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 626 > X:[ 18 , 19 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 627 > X:[ 18 , 19 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 628 > X:[ 18 , 19 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 629 > X:[ 18 , 19 ] Y:[ 3 , 4 ]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 630 > X:[ 18 , 19 ] Y:[ 4 , 5 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 631 > X:[ 19 , 20 ] Y:[ -9 , -8 ]
Found Entropy: 0
\{\text{Window: } 632 > X: [19, 20] Y: [-8, -7] \}
Found Entropy: 0
\{\text{Window: }633 > X: [19, 20] Y: [-7, -6]
Found Entropy: 0
<Window: 634 > X:[ 19 , 20 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 635 > X:[ 19 , 20 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 636 > X:[ 19 , 20 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 637 > X:[ 19 , 20 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window: } 638 \rangle \ \text{X:} [ 19 , 20 ] \ \text{Y:} [ -2 , -1 ]
Found Entropy: 0
<Window: 639 > X:[ 19 , 20 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 640 > X:[ 19 , 20 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 641 > X:[ 19 , 20 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 642 > X:[ 19 , 20 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 643 > X:[ 19 , 20 ] Y:[ 3 , 4 ]
Found a sample of class: 2
Found Entropy: 0.0
```

```
<Window: 644 > X:[ 19 , 20 ] Y:[ 4 , 5 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 645 > X:[ 20 , 21 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 646 > X:[ 20 , 21 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 647 > X:[ 20 , 21 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 648 > X:[ 20 , 21 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 649 > X:[ 20 , 21 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 650 > X:[ 20 , 21 ] Y:[ -4 , -3 ]
Found Entropy: 0
\{Window: 651 > X: [20, 21] Y: [-3, -2]
Found Entropy: 0
\{\text{Window: }652 > X:[20,21] Y:[-2,-1]
Found Entropy: 0
<Window: 653 > X:[ 20 , 21 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 654 > X:[ 20 , 21 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 655 > X:[ 20 , 21 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 656 > X:[ 20 , 21 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 657 > X:[ 20 , 21 ] Y:[ 3 , 4 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 658 > X:[ 20 , 21 ] Y:[ 4 , 5 ]
Found a sample of class: 2
Found Entropy: 0.0
Total Count: 658
Expected Count: 658
OKAY: True
----Done--- 1.2554823251787535
Done!
-26 21 -9 5
You Can use this matrix now.
X_{min} = -26
X_max= 21
Y_min = -9
```

```
Y_{max} = 5
And the Matrix Shape: 47 * 14
\{\text{Window: 1 > X:[-26,-25] Y:[-9,-8]}
Found Entropy: 0
\{\text{Window: 2} > \text{X:[-26,-25]} \text{Y:[-8,-7]}
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 3 \rangle X: [-26, -25] Y: [-7, -6]
Found a sample of class: 0
Found Entropy: 0.0
\{\text{Window: 4} > \text{X:[-26,-25]} \text{Y:[-6,-5]}
Found Entropy: 0
<Window: 5 > X:[ -26 , -25 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 6 > X:[ -26 , -25 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: 7 > X:[-26,-25] Y:[-3,-2]}
Found Entropy: 0
\langle \text{Window: 8 > X:[-26,-25] Y:[-2,-1]}
Found Entropy: 0
\langle \text{Window: 9} \rangle X: [-26, -25] Y: [-1, 0]
Found Entropy: 0
<Window: 10 > X:[ -26 , -25 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 11 > X:[ -26 , -25 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window}: 12 \rangle X: [-26, -25] Y: [2, 3]
Found Entropy: 0
<Window: 13 > X:[ -26 , -25 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 14 > X:[ -26 , -25 ] Y:[ 4 , 5 ]
Found Entropy: 0
\{Window: 15 > X: [ -25 , -24 ] Y: [ -9 , -8 ]
Found Entropy: 0
<Window: 16 > X:[ -25 , -24 ] Y:[ -8 , -7 ]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
<Window: 17 > X:[ -25 , -24 ] Y:[ -7 , -6 ]
Found a sample of class: 0
Found Entropy: 0.0
```

```
<Window: 18 > X:[ -25 , -24 ] Y:[ -6 , -5 ]
Found a sample of class: 0
Found Entropy: 0.0
\forall 19 > X:[-25, -24] Y:[-5, -4]
Found Entropy: 0
<Window: 20 > X:[ -25 , -24 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 21 \rangle X: [-25, -24] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 22 \rangle X: [-25, -24] Y: [-2, -1]
Found Entropy: 0
\{Window: 23 > X:[ -25 , -24 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 24 > X:[ -25 , -24 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 25 \rangle X: [-25, -24] Y: [1, 2]
Found Entropy: 0
<Window: 26 > X:[ -25 , -24 ] Y:[ 2 , 3 ]
Found Entropy: 0
\langle \text{Window}: 27 \rangle X: [-25, -24] Y: [3, 4]
Found Entropy: 0
<Window: 28 > X:[ -25 , -24 ] Y:[ 4 , 5 ]
Found Entropy: 0
\{Window: 29 \} X: [ -24 , -23 ] Y: [ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 30 \rangle X: [-24, -23] Y: [-8, -7]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\forall X: [-24, -23] Y: [-7, -6]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.5623351446188083
\langle \text{Window}: 32 \rangle X: [-24, -23] Y: [-6, -5]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 33 \rangle X: [-24, -23] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 34 \rangle X: [-24, -23] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 35 \rangle X: [-24, -23] Y: [-3, -2]
Found Entropy: 0
\forall Window: 36 > X:[ -24 , -23 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 37 > X:[ -24 , -23 ] Y:[ -1 , 0 ]
Found Entropy: 0
```

```
\langle \text{Window: } 38 \rangle \ \text{X:[} -24 , -23 \ ] \ \text{Y:[} 0 , 1 \ ]
Found Entropy: 0
\langle \text{Window: } 39 \rangle \text{ X:} [ -24 , -23 ] \text{ Y:} [ 1 , 2 ]
Found Entropy: 0
\{\text{Window: } 40 > X: [-24, -23] Y: [2, 3]
Found Entropy: 0
\langle \text{Window}: 41 > X: [-24, -23] Y: [3, 4]
Found Entropy: 0
\{\text{Window: } 42 > X: [-24, -23] Y: [4, 5]
Found Entropy: 0
\{\text{Window: } 43 > X: [-23, -22] \ Y: [-9, -8] \}
Found Entropy: 0
\{\text{Window: } 44 > \text{X:} [-23, -22] \text{ Y:} [-8, -7] \}
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 45 \rangle X: [-23, -22] Y: [-7, -6]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.5623351446188083
\langle \text{Window}: 46 \rangle X: [-23, -22] Y: [-6, -5]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\{\text{Window: } 47 > \text{X:} [-23, -22] \text{ Y:} [-5, -4] \}
Found Entropy: 0
\langle \text{Window: } 48 \rangle \ \text{X:[} -23 , -22 \ ] \ \text{Y:[} -4 , -3 \ ]
Found Entropy: 0
\forall 1 = 1  \forall 1 = 1  \forall 2 = 1  \forall 3 = 1  \forall 4 = 1  \forall 5 = 1  \forall 5 = 1  \forall 6 = 1 
Found Entropy: 0
\langle \text{Window}: 50 \rangle X: [-23, -22] Y: [-2, -1]
Found Entropy: 0
<Window: 51 > X:[ -23 , -22 ] Y:[ -1 , 0 ]
Found Entropy: 0
\langle \text{Window: } 52 \rangle X:[-23, -22] Y:[0, 1]
Found Entropy: 0
\langle \text{Window: 53} \rangle X: [-23, -22] Y: [1, 2]
Found Entropy: 0
\langle \text{Window: 54} \rangle \text{ X:[-23,-22] Y:[2,3]}
Found Entropy: 0
<Window: 55 > X:[ -23 , -22 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 56 > X:[ -23 , -22 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 57 \rangle X: [-22, -21] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window: 58} \rangle \text{ X:} [-22, -21] \text{ Y:} [-8, -7]
```

```
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\{Window: 59 \} X: [ -22 , -21 ] Y: [ -7 , -6 ]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window: } 60 \rangle \text{ X: } [-22, -21] \text{ Y: } [-6, -5]
Found Entropy: 0
\langle \text{Window}: 61 \rangle X: [-22, -21] Y: [-5, -4]
Found Entropy: 0
\{\text{Window: } 62 > \text{X:} [-22, -21] \text{ Y:} [-4, -3] \}
Found Entropy: 0
\langle \text{Window: } 63 \rangle \text{ X: [ } -22 \text{ , } -21 \text{ ] } \text{ Y: [ } -3 \text{ , } -2 \text{ ]}
Found Entropy: 0
\{\text{Window: } 64 > \text{X:} [-22, -21] \text{ Y:} [-2, -1] \}
Found Entropy: 0
<Window: 65 > X:[ -22 , -21 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 66 > X:[-22, -21] Y:[0, 1]
Found Entropy: 0
<Window: 67 > X:[ -22 , -21 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 68 > X:[ -22 , -21 ] Y:[ 2 , 3 ]
Found Entropy: 0
\langle \text{Window}: 69 \rangle X: [-22, -21] Y: [3, 4]
Found Entropy: 0
\langle \text{Window: 70} \rangle X: [-22, -21] Y: [4, 5]
Found Entropy: 0
\{\text{Window: 71} > X: [-21, -20] Y: [-9, -8]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 72 \rangle X: [-21, -20] Y: [-8, -7]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.6365141682948128
\langle \text{Window: 73} \rangle \text{ X: [ -21 , -20 ] Y: [ -7 , -6 ]}
Found a sample of class: 0
Found Entropy: 0.0
\{\text{Window: } 74 > \text{X:} [-21, -20] \text{ Y:} [-6, -5] \}
Found a sample of class: 1
Found a sample of class: 0
```

```
Found Entropy: 0.6931471805599453
\forall X: [-21, -20] \ Y: [-5, -4]
Found Entropy: 0
\{Window: 76 > X: [ -21 , -20 ] Y: [ -4 , -3 ]
Found Entropy: 0
\forall X: [-21, -20] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window: 78} \rangle \text{ X: [-21, -20] Y: [-2, -1]}
Found Entropy: 0
\{Window: 79 \} X: [ -21 , -20 ] Y: [ -1 , 0 ]
Found Entropy: 0
<Window: 80 > X:[ -21 , -20 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 81 > X:[ -21 , -20 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 82 > X:[ -21 , -20 ] Y:[ 2 , 3 ]
Found Entropy: 0
\langle \text{Window}: 83 \rangle X: [-21, -20] Y: [3, 4]
Found Entropy: 0
\{\text{Window: 84} > \text{X:} [-21, -20] \text{ Y:} [4, 5]
Found Entropy: 0
\langle \text{Window: } 85 \rangle \text{ X: } [-20, -19] \text{ Y: } [-9, -8]
Found Entropy: 0
<Window: 86 > X:[ -20 , -19 ] Y:[ -8 , -7 ]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window: 87} \rangle \text{ X: [ -20 , -19 ] Y: [ -7 , -6 ]}
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.5623351446188083
\langle \text{Window: 88} \rangle \text{ X: [ -20 , -19 ] Y: [ -6 , -5 ]}
Found Entropy: 0
\langle \text{Window: } 89 \rangle \text{ X: } [-20, -19] \text{ Y: } [-5, -4]
Found Entropy: 0
\{Window: 90 > X:[ -20 , -19 ] Y:[ -4 , -3 ]
Found Entropy: 0
\{Window: 91 > X:[ -20 , -19 ] Y:[ -3 , -2 ]
Found Entropy: 0
\forall \text{Window: } 92 > X:[-20, -19] Y:[-2, -1]
Found Entropy: 0
\langle \text{Window: } 93 \rangle \ \text{X:[} -20 \ , -19 \ ] \ \text{Y:[} -1 \ , 0 \ ]
Found Entropy: 0
<Window: 94 > X:[ -20 , -19 ] Y:[ 0 , 1 ]
Found Entropy: 0
\forall x \in \mathbb{Z} < Window: 95 > X: [ -20 , -19 ] Y: [ 1 , 2 ]
Found Entropy: 0
```

```
\langle \text{Window: 96} \rangle \text{ X:[-20,-19] Y:[2,3]}
Found Entropy: 0
<Window: 97 > X:[ -20 , -19 ] Y:[ 3 , 4 ]
Found Entropy: 0
\{\text{Window: 98} > \text{X:} [-20, -19] \text{ Y:} [4, 5]
Found Entropy: 0
\langle \text{Window: } 99 \rangle \ \text{X:} [ -19 , -18 ] \ \text{Y:} [ -9 , -8 ]
Found Entropy: 0
\{Window: 100 > X:[-19, -18] Y:[-8, -7]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 101 > X:[-19, -18] Y:[-7, -6]
Found Entropy: 0
\langle \text{Window: } 102 \rangle \text{ X:[} -19 , -18 ] \text{ Y:[} -6 , -5 ]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window: } 103 \rangle \text{ X:[} -19 \text{ , } -18 \text{] } \text{ Y:[} -5 \text{ , } -4 \text{]}
Found Entropy: 0
\{Window: 104 > X:[-19, -18] Y:[-4, -3]
Found Entropy: 0
\{Window: 105 > X:[-19, -18] Y:[-3, -2]
Found Entropy: 0
\langle \text{Window: } 106 \rangle \ \text{X:[} -19 \ , -18 \ ] \ \text{Y:[} -2 \ , -1 \ ]
Found Entropy: 0
\langle \text{Window}: 107 > X:[-19, -18] Y:[-1, 0]
Found Entropy: 0
\langle \text{Window: } 108 \rangle \ \text{X:[} -19 \ , -18 \ ] \ \text{Y:[} 0 \ , 1 \ ]
Found Entropy: 0
\langle \text{Window: } 109 \rangle \ \text{X:[} -19 \ , -18 \ ] \ \text{Y:[} 1 \ , 2 \ ]
Found Entropy: 0
\langle \text{Window: } 110 \rangle \ \text{X:[} -19 \ , -18 \ ] \ \text{Y:[} 2 \ , 3 \ ]
Found Entropy: 0
\langle \text{Window: } 111 \rangle \ \text{X:[} -19 \ , -18 \ ] \ \text{Y:[} 3 \ , 4 \ ]
Found Entropy: 0
<Window: 112 > X:[ -19 , -18 ] Y:[ 4 , 5 ]
Found Entropy: 0
\{Window: 113 > X:[-18, -17] Y:[-9, -8]
Found Entropy: 0
<Window: 114 > X:[ -18 , -17 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 115 > X:[ -18 , -17 ] Y:[ -7 , -6 ]
Found Entropy: 0
\langle \text{Window}: 116 \rangle X: [-18, -17] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window: } 117 \rangle \text{ X:[} -18 , -17 ] \text{ Y:[} -5 , -4 ]
Found Entropy: 0
<Window: 118 > X:[ -18 , -17 ] Y:[ -4 , -3 ]
Found Entropy: 0
```

```
\langle \text{Window: } 119 \rangle \ \text{X:[} -18 \ , -17 \ ] \ \text{Y:[} -3 \ , -2 \ ]
Found Entropy: 0
\forall \text{Window: } 120 > X:[-18, -17] Y:[-2, -1]
Found Entropy: 0
<Window: 121 > X:[ -18 , -17 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 122 > X:[ -18 , -17 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 123 > X:[ -18 , -17 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window}: 124 \rangle X: [-18, -17] Y: [2, 3]
Found Entropy: 0
<Window: 125 > X:[ -18 , -17 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window}: 126 \rangle X: [-18, -17] Y: [4, 5]
Found Entropy: 0
\forall x = 127 > x : [ -17 , -16 ] Y : [ -9 , -8 ]
Found Entropy: 0
\forall X: [-17, -16] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 129 \rangle X: [-17, -16] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window: } 130 \rangle \text{ X:[} -17 , -16 ] \text{ Y:[} -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 131 \rangle \ \text{X:[} -17 \ , -16 \ ] \ \text{Y:[} -5 \ , -4 \ ]
Found Entropy: 0
\forall Window: 132 > X:[ -17 , -16 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 133 > X:[ -17 , -16 ] Y:[ -3 , -2 ]
Found Entropy: 0
\forall \text{Window: } 134 > X:[-17, -16] Y:[-2, -1]
Found Entropy: 0
<Window: 135 > X:[ -17 , -16 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 136 > X:[ -17 , -16 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 137 > X:[ -17 , -16 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 138 > X:[ -17 , -16 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 139 > X:[ -17 , -16 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 140 > X:[ -17 , -16 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 141 \rangle \ \text{X:[} -16 \ , -15 \ ] \ \text{Y:[} -9 \ , -8 \ ]
Found Entropy: 0
\langle Window: 142 \rangle X: [ -16 , -15 ] Y: [ -8 , -7 ]
Found Entropy: 0
```

```
\langle \text{Window}: 143 \rangle X: [-16, -15] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 144 \rangle X: [-16, -15] Y: [-6, -5]
Found Entropy: 0
\{Window: 145 > X:[-16, -15] Y:[-5, -4]
Found Entropy: 0
<Window: 146 > X:[ -16 , -15 ] Y:[ -4 , -3 ]
Found Entropy: 0
\{Window: 147 > X: [ -16 , -15 ] Y: [ -3 , -2 ] 
Found Entropy: 0
\langle \text{Window}: 148 \rangle X: [-16, -15] Y: [-2, -1]
Found Entropy: 0
<Window: 149 > X:[ -16 , -15 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 150 > X:[ -16 , -15 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window: } 151 \rangle \ \text{X:[} -16 \ , -15 \ ] \ \text{Y:[} 1 \ , 2 \ ]
Found Entropy: 0
\forall X: [-16, -15] Y: [2, 3]
Found Entropy: 0
<Window: 153 > X:[ -16 , -15 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window: } 154 \rangle \ \text{X:[} -16 \ , -15 \ ] \ \text{Y:[} 4 \ , 5 \ ]
Found Entropy: 0
<Window: 155 > X:[ -15 , -14 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 156 \rangle X: [-15, -14] Y: [-8, -7]
Found Entropy: 0
\forall Window: 157 > X:[ -15 , -14 ] Y:[ -7 , -6 ]
Found Entropy: 0
\langle \text{Window}: 158 \rangle X: [-15, -14] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 159 \rangle X: [-15, -14] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 160 \rangle X: [-15, -14] Y: [-4, -3]
Found Entropy: 0
\{Window: 161 > X:[-15, -14] Y:[-3, -2]
Found Entropy: 0
<Window: 162 > X:[ -15 , -14 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 163 > X:[ -15 , -14 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 164 > X:[ -15 , -14 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 165 > X:[ -15 , -14 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 166 > X:[ -15 , -14 ] Y:[ 2 , 3 ]
Found Entropy: 0
```

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\langle \text{Window: } 167 \rangle \text{ X:[} -15 , -14 ] \text{ Y:[} 3 , 4 ]
Found Entropy: 0
<Window: 168 > X:[ -15 , -14 ] Y:[ 4 , 5 ]
Found Entropy: 0
\{Window: 169 > X:[-14, -13] Y:[-9, -8]
Found Entropy: 0
<Window: 170 > X:[ -14 , -13 ] Y:[ -8 , -7 ]
Found Entropy: 0
\{Window: 171 > X:[ -14 , -13 ] Y:[ -7 , -6 ]
Found Entropy: 0
\langle \text{Window}: 172 \rangle X: [-14, -13] Y: [-6, -5]
Found Entropy: 0
<Window: 173 > X:[ -14 , -13 ] Y:[ -5 , -4 ]
Found Entropy: 0
\forall Window: 174 > X:[ -14 , -13 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 175 \rangle X: [-14, -13] Y: [-3, -2]
Found Entropy: 0
<Window: 176 > X:[ -14 , -13 ] Y:[ -2 , -1 ]
Found Entropy: 0
\langle \text{Window}: 177 > X:[-14, -13] Y:[-1, 0]
Found Entropy: 0
\langle \text{Window: } 178 \rangle \ \text{X:[} -14 \ , -13 \ ] \ \text{Y:[} 0 \ , 1 \ ]
Found Entropy: 0
\langle \text{Window: } 179 \rangle \ \text{X:[} -14 \ , -13 \ ] \ \text{Y:[} 1 \ , 2 \ ]
Found Entropy: 0
\langle \text{Window: } 180 \rangle \ \text{X:[} -14 \ , -13 \ ] \ \text{Y:[} 2 \ , 3 \ ]
Found Entropy: 0
<Window: 181 > X:[ -14 , -13 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window: } 182 \rangle \ \text{X:[} -14 \ , -13 \ ] \ \text{Y:[} 4 \ , 5 \ ]
Found Entropy: 0
\langle \text{Window: } 183 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} -9 \ , -8 \ ]
Found Entropy: 0
\langle \text{Window}: 184 \rangle X: [-13, -12] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 185 \rangle X: [-13, -12] Y: [-7, -6]
Found Entropy: 0
<Window: 186 > X:[ -13 , -12 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 187 > X:[ -13 , -12 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 188 > X:[ -13 , -12 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 189 \rangle X: [-13, -12] Y: [-3, -2]
Found Entropy: 0
\forall 190 > X:[-13, -12] Y:[-2, -1]
Found Entropy: 0
```

```
<Window: 191 > X:[ -13 , -12 ] Y:[ -1 , 0 ]
Found Entropy: 0
\forall \text{Window: } 192 > X:[-13, -12] Y:[0, 1]
Found Entropy: 0
\langle Window: 193 \rangle X: [-13, -12] Y: [1, 2]
Found Entropy: 0
\langle \text{Window}: 194 \rangle X: [-13, -12] Y: [2, 3]
Found Entropy: 0
<Window: 195 > X:[ -13 , -12 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window}: 196 \rangle X: [-13, -12] Y: [4, 5]
Found Entropy: 0
\forall \text{Window: } 197 > X:[-12, -11] Y:[-9, -8]
Found Entropy: 0
\forall \text{Window: } 198 > X:[-12, -11] Y:[-8, -7]
Found Entropy: 0
\forall \text{Window: } 199 > X:[-12, -11] Y:[-7, -6]
Found Entropy: 0
\forall X: [-12, -11] Y: [-6, -5]
Found Entropy: 0
<Window: 201 > X:[ -12 , -11 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 202 \rangle X: [-12, -11] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 203 \rangle X: [-12, -11] Y: [-3, -2]
Found Entropy: 0
\forall \text{Window: } 204 > X:[-12, -11] Y:[-2, -1]
Found Entropy: 0
<Window: 205 > X:[-12, -11] Y:[-1, 0]
Found Entropy: 0
\langle \text{Window}: 206 \rangle X: [-12, -11] Y: [0, 1]
Found Entropy: 0
\langle \text{Window: } 207 \rangle X:[-12, -11] Y:[1, 2]
Found Entropy: 0
<Window: 208 > X:[ -12 , -11 ] Y:[ 2 , 3 ]
Found Entropy: 0
\{Window: 209 > X:[-12, -11] Y:[3, 4]
Found Entropy: 0
\forall X:[-12, -11] Y:[4, 5]
Found Entropy: 0
<Window: 211 > X:[ -11 , -10 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window: } 212 \rangle \text{ X:[} -11 , -10 ] \text{ Y:[} -8 , -7 ]
Found Entropy: 0
<Window: 213 > X:[ -11 , -10 ] Y:[ -7 , -6 ]
Found Entropy: 0
\forall X:[-11, -10] Y:[-6, -5]
Found Entropy: 0
```

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\langle \text{Window}: 215 \rangle X: [-11, -10] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 216 \rangle X: [-11, -10] Y: [-4, -3]
Found Entropy: 0
\{Window: 217 > X:[-11, -10] Y:[-3, -2]
Found Entropy: 0
<Window: 218 > X:[ -11 , -10 ] Y:[ -2 , -1 ]
Found Entropy: 0
\langle \text{Window}: 219 \rangle X: [-11, -10] Y: [-1, 0]
Found Entropy: 0
<Window: 220 > X:[ -11 , -10 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window: } 221 \rangle X:[-11, -10] Y:[1, 2]
Found Entropy: 0
\langle \text{Window: } 222 \rangle X:[-11, -10] Y:[2, 3]
Found Entropy: 0
\langle \text{Window: } 223 \rangle X:[-11, -10] Y:[3, 4]
Found Entropy: 0
<Window: 224 > X:[-11, -10] Y:[4, 5]
Found Entropy: 0
<Window: 225 > X:[ -10 , -9 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 226 > X:[ -10 , -9 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window: } 227 \rangle \text{ X:[} -10 , -9 ] \text{ Y:[} -7 , -6 ]
Found Entropy: 0
\langle \text{Window}: 228 \rangle X: [-10, -9] Y: [-6, -5]
Found Entropy: 0
<Window: 229 > X:[ -10 , -9 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 230 \rangle X: [-10, -9] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window: } 231 \rangle \text{ X:[} -10 , -9 ] \text{ Y:[} -3 , -2 ]
Found Entropy: 0
\langle \text{Window}: 232 \rangle X: [-10, -9] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 233 \rangle X: [-10, -9] Y: [-1, 0]
Found Entropy: 0
<Window: 234 > X:[ -10 , -9 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window: } 235 \rangle \text{ X:[} -10 , -9 ] \text{ Y:[} 1 , 2 ]
Found Entropy: 0
<Window: 236 > X:[ -10 , -9 ] Y:[ 2 , 3 ]
Found Entropy: 0
\langle \text{Window: } 237 \rangle \text{ X:[} -10 , -9 ] \text{ Y:[} 3 , 4 ]
Found Entropy: 0
<Window: 238 > X:[ -10 , -9 ] Y:[ 4 , 5 ]
Found Entropy: 0
```

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\langle \text{Window: } 239 \rangle \text{ X:} [ -9 , -8 ] \text{ Y:} [ -9 , -8 ]
Found Entropy: 0
\langle \text{Window: } 240 \rangle \text{ X:[} -9 , -8 ] \text{ Y:[} -8 , -7 ]
Found Entropy: 0
\{Window: 241 > X:[ -9 , -8 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 242 > X:[ -9 , -8 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 243 \rangle X: [-9, -8] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 244 \rangle X: [-9, -8] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 245 \rangle X: [-9, -8] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 246 \rangle X: [-9, -8] Y: [-2, -1]
Found Entropy: 0
<Window: 247 > X:[-9, -8] Y:[-1, 0]
Found Entropy: 0
<Window: 248 > X:[-9, -8] Y:[0, 1]
Found Entropy: 0
\langle \text{Window}: 249 \rangle X:[-9, -8] Y:[1, 2]
Found Entropy: 0
\langle \text{Window}: 250 \rangle X:[-9, -8] Y:[2, 3]
Found Entropy: 0
<Window: 251 > X:[ -9 , -8 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 252 > X:[ -9 , -8 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 253 > X:[ -8 , -7 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 254 \rangle X: [-8, -7] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 255 \rangle X: [-8, -7] Y: [-7, -6]
Found Entropy: 0
<Window: 256 > X:[ -8 , -7 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 257 \rangle X: [-8, -7] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 258 \rangle X: [-8, -7] Y: [-4, -3]
Found Entropy: 0
\forall X: [-8, -7] Y: [-3, -2]
Found Entropy: 0
<Window: 260 > X:[ -8 , -7 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 261 > X:[ -8 , -7 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 262 > X:[ -8 , -7 ] Y:[ 0 , 1 ]
Found Entropy: 0
```

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\langle \text{Window}: 263 \rangle X: [-8, -7] Y: [1, 2]
Found Entropy: 0
<Window: 264 > X:[ -8 , -7 ] Y:[ 2 , 3 ]
Found Entropy: 0
\langle \text{Window}: 265 \rangle X: [-8, -7] Y: [3, 4]
Found Entropy: 0
<Window: 266 > X:[ -8 , -7 ] Y:[ 4 , 5 ]
Found Entropy: 0
\{Window: 267 > X:[-7,-6] Y:[-9,-8]
Found Entropy: 0
\{\text{Window: } 268 > X:[-7,-6] Y:[-8,-7]
Found Entropy: 0
\langle \text{Window: } 269 \rangle \text{ X:[} -7 , -6 ] \text{ Y:[} -7 , -6 ]
Found Entropy: 0
\langle \text{Window}: 270 \rangle X:[-7,-6] Y:[-6,-5]
Found Entropy: 0
\forall x \in X : [-7, -6] Y : [-5, -4]
Found Entropy: 0
<Window: 272 > X:[-7, -6] Y:[-4, -3]
Found Entropy: 0
\langle \text{Window}: 273 \rangle X: [-7, -6] Y: [-3, -2]
Found Entropy: 0
\forall Window: 274 > X:[ -7 , -6 ] Y:[ -2 , -1 ]
Found Entropy: 0
\langle \text{Window}: 275 \rangle X: [-7, -6] Y: [-1, 0]
Found Entropy: 0
<Window: 276 > X:[ -7 , -6 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 277 > X:[ -7 , -6 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window}: 278 \rangle X:[-7,-6] Y:[2,3]
Found Entropy: 0
<Window: 279 > X:[ -7 , -6 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window}: 280 \rangle X: [-7, -6] Y: [4, 5]
Found Entropy: 0
\langle \text{Window}: 281 \rangle X: [-6, -5] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 282 \rangle X: [-6, -5] Y: [-8, -7]
Found Entropy: 0
\forall X: [-6, -5] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window: } 284 \rangle \ \text{X:[} -6 \ , -5 \ ] \ \text{Y:[} -6 \ , -5 \ ]
Found Entropy: 0
<Window: 285 > X:[ -6 , -5 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 286 > X:[ -6 , -5 ] Y:[ -4 , -3 ]
Found Entropy: 0
```

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\langle \text{Window: } 287 \rangle \text{ X:[} -6 , -5 ] \text{ Y:[} -3 , -2 ]
Found Entropy: 0
\langle \text{Window: 288} \rangle X: [-6, -5] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window: 289} \rangle X: [-6, -5] Y: [-1, 0]
Found Entropy: 0
\langle \text{Window}: 290 \rangle X: [-6, -5] Y: [0, 1]
Found Entropy: 0
\langle \text{Window}: 291 \rangle X: [-6, -5] Y: [1, 2]
Found Entropy: 0
\langle Window: 292 \rangle X: [-6, -5] Y: [2, 3]
Found Entropy: 0
\forall X: [-6, -5] Y: [3, 4]
Found Entropy: 0
<Window: 294 > X:[ -6 , -5 ] Y:[ 4 , 5 ]
Found Entropy: 0
\forall X: [-5, -4] \ Y: [-9, -8]
Found Entropy: 0
\forall 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.
Found Entropy: 0
\langle \text{Window}: 297 \rangle X: [-5, -4] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window: } 298 \rangle \ \text{X:} [ -5 , -4 ] \ \text{Y:} [ -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 299 \rangle X: [-5, -4] Y: [-5, -4]
Found Entropy: 0
<Window: 300 > X:[ -5 , -4 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 301 \rangle X: [-5, -4] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 302 \rangle X: [-5, -4] Y: [-2, -1]
Found Entropy: 0
<Window: 303 > X:[-5, -4] Y:[-1, 0]
Found Entropy: 0
<Window: 304 > X:[ -5 , -4 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 305 \rangle X: [-5, -4] Y: [1, 2]
Found Entropy: 0
\{\text{Window: } 306 > \text{X:} [-5, -4] \text{ Y:} [2, 3]
Found Entropy: 0
<Window: 307 > X:[-5, -4] Y:[3, 4]
Found Entropy: 0
<Window: 308 > X:[ -5 , -4 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 309 > X:[-4, -3] Y:[-9, -8]
Found Entropy: 0
<Window: 310 > X:[ -4 , -3 ] Y:[ -8 , -7 ]
Found Entropy: 0
```

```
\langle \text{Window}: 311 \rangle X: [-4, -3] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 312 \rangle X: [-4, -3] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 313 \rangle X: [-4, -3] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 314 \rangle X: [-4, -3] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 315 \rangle X: [-4, -3] Y: [-3, -2]
Found Entropy: 0
<Window: 316 > X:[ -4 , -3 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 317 > X:[-4, -3] Y:[-1, 0]
Found Entropy: 0
<Window: 318 > X:[ -4 , -3 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 319 \rangle X: [-4, -3] Y: [1, 2]
Found Entropy: 0
<Window: 320 > X:[ -4 , -3 ] Y:[ 2 , 3 ]
Found Entropy: 0
\langle \text{Window}: 321 \rangle X: [-4, -3] Y: [3, 4]
Found Entropy: 0
\langle \text{Window}: 322 \rangle X: [-4, -3] Y: [4, 5]
Found Entropy: 0
\langle \text{Window}: 323 \rangle X: [-3, -2] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 324 \rangle X: [-3, -2] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 325 \rangle X: [-3, -2] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 326 \rangle X: [-3, -2] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 327 \rangle X:[-3, -2] Y:[-5, -4]
Found Entropy: 0
\langle \text{Window}: 328 \rangle X: [-3, -2] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 329 \rangle X: [-3, -2] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 330 \rangle X: [-3, -2] Y: [-2, -1]
Found Entropy: 0
<Window: 331 > X:[ -3 , -2 ] Y:[ -1 , 0 ]
Found Entropy: 0
\langle \text{Window}: 332 \rangle X: [-3, -2] Y: [0, 1]
Found Entropy: 0
<Window: 333 > X:[ -3 , -2 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 334 > X:[ -3 , -2 ] Y:[ 2 , 3 ]
Found Entropy: 0
```

```
<Window: 335 > X:[ -3 , -2 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 336 > X:[ -3 , -2 ] Y:[ 4 , 5 ]
Found Entropy: 0
\{Window: 337 > X: [ -2 , -1 ] Y: [ -9 , -8 ] 
Found Entropy: 0
\langle \text{Window}: 338 \rangle X: [-2, -1] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 339 \rangle X: [-2, -1] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 340 \rangle X: [-2, -1] Y: [-6, -5]
Found Entropy: 0
\forall x : [-2, -1] \ Y : [-5, -4]
Found Entropy: 0
\langle \text{Window}: 342 \rangle X: [-2, -1] Y: [-4, -3]
Found Entropy: 0
<Window: 343 > X:[ -2 , -1 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 344 > X:[-2, -1] Y:[-2, -1]
Found Entropy: 0
\langle \text{Window}: 345 \rangle X: [-2, -1] Y: [-1, 0]
Found Entropy: 0
<Window: 346 > X:[ -2 , -1 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 347 \rangle X:[-2,-1] Y:[1,2]
Found Entropy: 0
<Window: 348 > X:[ -2 , -1 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 349 > X:[ -2 , -1 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window}: 350 \rangle X: [-2, -1] Y: [4, 5]
Found Entropy: 0
<Window: 351 > X:[ -1 , 0 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 352 \rangle X:[-1, 0] Y:[-8, -7]
Found Entropy: 0
\langle \text{Window}: 353 \rangle X: [-1, 0] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 354 \rangle X: [-1, 0] Y: [-6, -5]
Found Entropy: 0
<Window: 355 > X:[ -1 , 0 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 356 > X:[ -1 , 0 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 357 \rangle \text{ X:[} -1 , 0 ] \text{ Y:[} -3 , -2 ]
Found Entropy: 0
<Window: 358 > X:[ -1 , 0 ] Y:[ -2 , -1 ]
Found Entropy: 0
```

```
<Window: 359 > X:[ -1 , 0 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 360 > X:[ -1 , 0 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 361 > X:[ -1 , 0 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window}: 362 \rangle X: [-1, 0] Y: [2, 3]
Found Entropy: 0
<Window: 363 > X:[ -1 , 0 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 364 > X:[ -1 , 0 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 365 > X:[ 0 , 1 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 366 > X:[ 0 , 1 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 367 > X:[ 0 , 1 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 368 > X:[0, 1] Y:[-6, -5]
Found Entropy: 0
<Window: 369 > X:[ 0 , 1 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 370 > X:[ 0 , 1 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 371 > X:[0,1] Y:[-3,-2]
Found Entropy: 0
\langle \text{Window}: 372 \rangle X:[0,1] Y:[-2,-1]
Found Entropy: 0
<Window: 373 > X:[ 0 , 1 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 374 > X:[ 0 , 1 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 375 > X:[ 0 , 1 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 376 > X:[ 0 , 1 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 377 > X:[0,1] Y:[3,4]
Found Entropy: 0
<Window: 378 > X:[0,1] Y:[4,5]
Found Entropy: 0
<Window: 379 > X:[1, 2] Y:[-9, -8]
Found Entropy: 0
<Window: 380 > X:[ 1 , 2 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 381 > X:[ 1 , 2 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 382 > X:[ 1 , 2 ] Y:[ -6 , -5 ]
Found Entropy: 0
```

```
<Window: 383 > X:[1,2] Y:[-5,-4]
Found Entropy: 0
<Window: 384 > X:[1,2] Y:[-4,-3]
Found Entropy: 0
\langle \text{Window}: 385 \rangle X: [1, 2] Y: [-3, -2]
Found Entropy: 0
\{\text{Window: } 386 > X:[1,2] Y:[-2,-1]
Found Entropy: 0
<Window: 387 > X:[1, 2] Y:[-1, 0]
Found Entropy: 0
<Window: 388 > X:[ 1 , 2 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 389 \rangle X:[1,2] Y:[1,2]
Found Entropy: 0
\langle \text{Window}: 390 \rangle X:[1,2] Y:[2,3]
Found Entropy: 0
<Window: 391 > X:[ 1 , 2 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 392 > X:[1, 2] Y:[4, 5]
Found Entropy: 0
<Window: 393 > X:[ 2 , 3 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 394 \rangle X: [2, 3] Y: [-8, -7]
Found Entropy: 0
<Window: 395 > X:[ 2 , 3 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 396 > X:[ 2 , 3 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 397 > X:[ 2 , 3 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 398 \rangle X: [2, 3] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 399 \rangle X: [2, 3] Y: [-3, -2]
Found Entropy: 0
\langle Window: 400 \rangle X: [2, 3] Y: [-2, -1]
Found Entropy: 0
\langle Window: 401 \rangle X:[2,3] Y:[-1,0]
Found Entropy: 0
\{\text{Window: } 402 > X:[2,3] Y:[0,1]
Found Entropy: 0
<Window: 403 > X:[2,3] Y:[1,2]
Found Entropy: 0
<Window: 404 > X:[2,3] Y:[2,3]
Found Entropy: 0
<Window: 405 > X:[2,3] Y:[3,4]
Found Entropy: 0
<Window: 406 > X:[ 2 , 3 ] Y:[ 4 , 5 ]
Found Entropy: 0
```

```
<Window: 407 > X:[3,4] Y:[-9,-8]
Found Entropy: 0
<Window: 408 > X:[3,4] Y:[-8,-7]
Found Entropy: 0
<Window: 409 > X:[3,4] Y:[-7,-6]
Found Entropy: 0
<Window: 410 > X:[3, 4] Y:[-6, -5]
Found Entropy: 0
\{\text{Window: 411} > X: [3, 4] Y: [-5, -4]
Found Entropy: 0
\langle Window: 412 \rangle X: [3, 4] Y: [-4, -3]
Found Entropy: 0
<Window: 413 > X:[ 3 , 4 ] Y:[ -3 , -2 ]
Found Entropy: 0
\{Window: 414 > X:[3,4] Y:[-2,-1]
Found Entropy: 0
<Window: 415 > X:[ 3 , 4 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 416 > X:[ 3 , 4 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 417 > X:[ 3 , 4 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 418 > X:[3, 4] Y:[2, 3]
Found Entropy: 0
<Window: 419 > X:[ 3 , 4 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 420 > X:[3, 4] Y:[4, 5]
Found Entropy: 0
<Window: 421 > X:[ 4 , 5 ] Y:[ -9 , -8 ]
Found Entropy: 0
\{\text{Window: } 422 > X: [4, 5] Y: [-8, -7]
Found Entropy: 0
\{\text{Window: } 423 > X: [4, 5] Y: [-7, -6]
Found Entropy: 0
<Window: 424 > X:[ 4 , 5 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 425 > X:[ 4 , 5 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 426 \rangle X: [4, 5] Y: [-4, -3]
Found Entropy: 0
<Window: 427 > X:[4,5] Y:[-3,-2]
Found Entropy: 0
\{\text{Window: } 428 > X: [4, 5] Y: [-2, -1]
Found Entropy: 0
<Window: 429 > X:[ 4 , 5 ] Y:[ -1 , 0 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 430 > X:[ 4 , 5 ] Y:[ 0 , 1 ]
```

```
Found Entropy: 0
<Window: 431 > X:[4,5] Y:[1,2]
Found Entropy: 0
\{\text{Window: } 432 > X: [4, 5] Y: [2, 3]
Found Entropy: 0
<Window: 433 > X:[4,5] Y:[3,4]
Found Entropy: 0
<Window: 434 > X:[ 4 , 5 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 435 > X:[5,6] Y:[-9,-8]
Found Entropy: 0
<Window: 436 > X:[5,6] Y:[-8,-7]
Found Entropy: 0
<Window: 437 > X:[5,6] Y:[-7,-6]
Found Entropy: 0
<Window: 438 > X:[5,6] Y:[-6,-5]
Found Entropy: 0
<Window: 439 > X:[5,6] Y:[-5,-4]
Found Entropy: 0
<Window: 440 > X:[5,6] Y:[-4,-3]
Found Entropy: 0
<Window: 441 > X:[5,6] Y:[-3,-2]
Found Entropy: 0
\{\text{Window: } 442 > X: [5, 6] Y: [-2, -1]
Found Entropy: 0
<Window: 443 > X:[5,6] Y:[-1,0]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 444 > X:[5,6] Y:[0,1]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 445 > X:[ 5 , 6 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 446 > X:[ 5 , 6 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 447 > X:[5,6] Y:[3,4]
Found Entropy: 0
<Window: 448 > X:[5,6] Y:[4,5]
Found Entropy: 0
<Window: 449 > X:[ 6 , 7 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 450 > X:[6,7] Y:[-8,-7]
Found Entropy: 0
<Window: 451 > X:[6,7] Y:[-7,-6]
Found Entropy: 0
```

```
<Window: 452 > X:[ 6 , 7 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 453 > X:[ 6 , 7 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 454 > X:[6,7] Y:[-4,-3]
Found Entropy: 0
\langle \text{Window}: 455 \rangle X: [6, 7] Y: [-3, -2]
Found Entropy: 0
\{\text{Window: } 456 > X: [6, 7] Y: [-2, -1]
Found Entropy: 0
<Window: 457 > X:[6,7] Y:[-1,0]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.6365141682948128
<Window: 458 > X:[6,7] Y:[0,1]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 459 > X:[ 6 , 7 ] Y:[ 1 , 2 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 460 > X:[ 6 , 7 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 461 > X:[ 6 , 7 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 462 > X:[ 6 , 7 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 463 > X:[ 7 , 8 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 464 > X:[7,8] Y:[-8,-7]
Found Entropy: 0
<Window: 465 > X:[7,8] Y:[-7,-6]
Found Entropy: 0
<Window: 466 > X:[ 7 , 8 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 467 > X:[ 7 , 8 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 468 > X:[ 7 , 8 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 469 > X:[ 7 , 8 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 470 > X:[ 7 , 8 ] Y:[ -2 , -1 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 471 > X:[ 7 , 8 ] Y:[ -1 , 0 ]
Found a sample of class: 1
```

```
Found a sample of class: 1
Found Entropy: 0.0
<Window: 472 > X:[7,8] Y:[0,1]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 473 > X:[7,8] Y:[1,2]
Found Entropy: 0
\{\text{Window}: 474 > X: [7, 8] Y: [2, 3]
Found Entropy: 0
<Window: 475 > X:[7,8] Y:[3,4]
Found Entropy: 0
<Window: 476 > X:[7,8] Y:[4,5]
Found Entropy: 0
<Window: 477 > X:[8,9] Y:[-9,-8]
Found Entropy: 0
<Window: 478 > X:[8, 9] Y:[-8, -7]
Found Entropy: 0
<Window: 479 > X:[8, 9] Y:[-7, -6]
Found Entropy: 0
<Window: 480 > X:[8,9] Y:[-6,-5]
Found Entropy: 0
\langle \text{Window}: 481 \rangle X: [8, 9] Y: [-5, -4]
Found Entropy: 0
<Window: 482 > X:[8,9] Y:[-4,-3]
Found Entropy: 0
<Window: 483 > X:[8,9] Y:[-3,-2]
Found Entropy: 0
\langle \text{Window}: 484 \rangle X: [8, 9] Y: [-2, -1]
Found Entropy: 0
<Window: 485 > X:[8,9] Y:[-1,0]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 486 > X:[ 8 , 9 ] Y:[ 0 , 1 ]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 487 > X:[ 8 , 9 ] Y:[ 1 , 2 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 488 > X:[ 8 , 9 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 489 > X:[ 8 , 9 ] Y:[ 3 , 4 ]
Found Entropy: 0
```

```
<Window: 490 > X:[8, 9] Y:[4, 5]
Found Entropy: 0
<Window: 491 > X:[9, 10] Y:[-9, -8]
Found Entropy: 0
<Window: 492 > X:[9, 10] Y:[-8, -7]
Found Entropy: 0
<Window: 493 > X:[ 9 , 10 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 494 > X:[9, 10] Y:[-6, -5]
Found Entropy: 0
\{\text{Window: } 495 > X: [9, 10] Y: [-5, -4]
Found Entropy: 0
<Window: 496 > X:[ 9 , 10 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 497 > X:[9, 10] Y:[-3, -2]
Found Entropy: 0
<Window: 498 > X:[9, 10] Y:[-2, -1]
Found Entropy: 0
<Window: 499 > X:[9, 10] Y:[-1, 0]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 500 > X:[ 9 , 10 ] Y:[ 0 , 1 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 501 > X:[ 9 , 10 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 502 > X:[ 9 , 10 ] Y:[ 2 , 3 ]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 503 > X:[ 9 , 10 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 504 > X:[ 9 , 10 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 505 > X:[ 10 , 11 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 506 > X:[ 10 , 11 ] Y:[ -8 , -7 ]
Found Entropy: 0
\{Window: 507 > X:[10, 11] Y:[-7, -6]
Found Entropy: 0
<Window: 508 > X:[ 10 , 11 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 509 > X:[ 10 , 11 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 510 > X:[ 10 , 11 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 511 > X:[ 10 , 11 ] Y:[ -3 , -2 ]
Found Entropy: 0
```

```
\forall X:[10, 11] Y:[-2, -1]
Found Entropy: 0
<Window: 513 > X:[ 10 , 11 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 514 > X:[ 10 , 11 ] Y:[ 0 , 1 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 515 > X:[ 10 , 11 ] Y:[ 1 , 2 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 516 > X:[ 10 , 11 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 517 > X:[ 10 , 11 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 518 > X:[ 10 , 11 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 519 > X:[ 11 , 12 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 520 > X:[ 11 , 12 ] Y:[ -8 , -7 ]
Found Entropy: 0
\{Window: 521 > X:[11, 12] Y:[-7, -6]
Found Entropy: 0
<Window: 522 > X:[ 11 , 12 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 523 > X:[ 11 , 12 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 524 > X:[ 11 , 12 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 525 \rangle X: [11, 12] Y: [-3, -2]
Found Entropy: 0
\{Window: 526 > X:[11, 12] Y:[-2, -1]
Found Entropy: 0
<Window: 527 > X:[ 11 , 12 ] Y:[ -1 , 0 ]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 528 > X:[ 11 , 12 ] Y:[ 0 , 1 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 529 > X:[ 11 , 12 ] Y:[ 1 , 2 ]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 530 > X:[ 11 , 12 ] Y:[ 2 , 3 ]
Found a sample of class: 1
```

```
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 531 > X:[ 11 , 12 ] Y:[ 3 , 4 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 532 > X:[11, 12] Y:[4, 5]
Found Entropy: 0
<Window: 533 > X:[ 12 , 13 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 534 > X:[ 12 , 13 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window: 535} \rangle X: [12, 13] Y: [-7, -6]
Found Entropy: 0
<Window: 536 > X:[ 12 , 13 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 537 \rangle \text{ X:[ } 12 \text{ , } 13 \text{ ] } \text{ Y:[ } -5 \text{ , } -4 \text{ ]}
Found Entropy: 0
\langle \text{Window: 538} \rangle \text{ X:[ 12 , 13 ] Y:[ -4 , -3 ]}
Found Entropy: 0
\langle \text{Window: 539} \rangle X: [12, 13] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 540 \rangle X: [12, 13] Y: [-2, -1]
Found Entropy: 0
<Window: 541 > X:[12, 13] Y:[-1, 0]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 542 > X:[ 12 , 13 ] Y:[ 0 , 1 ]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.6365141682948128
<Window: 543 > X:[ 12 , 13 ] Y:[ 1 , 2 ]
Found a sample of class: 1
Found Entropy: 0.0
\forall \text{Window: } 544 > X:[12, 13] Y:[2, 3]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 545 > X:[ 12 , 13 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 546 > X:[ 12 , 13 ] Y:[ 4 , 5 ]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
```

```
Found Entropy: 0.0
<Window: 547 > X:[13, 14] Y:[-9, -8]
Found Entropy: 0
<Window: 548 > X:[ 13 , 14 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 549 > X:[13, 14] Y:[-7, -6]
Found Entropy: 0
<Window: 550 > X:[ 13 , 14 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 551 > X:[ 13 , 14 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 552 \rangle X: [13, 14] Y: [-4, -3]
Found Entropy: 0
<Window: 553 > X:[ 13 , 14 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window}: 554 \rangle X: [13, 14] Y: [-2, -1]
Found Entropy: 0
<Window: 555 > X:[ 13 , 14 ] Y:[ -1 , 0 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 556 > X:[ 13 , 14 ] Y:[ 0 , 1 ]
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.6931471805599453
<Window: 557 > X:[ 13 , 14 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 558 > X:[ 13 , 14 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 559 > X:[ 13 , 14 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 560 > X:[ 13 , 14 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 561 > X:[ 14 , 15 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 562 > X:[ 14 , 15 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 563 > X:[ 14 , 15 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 564 > X:[ 14 , 15 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 565 > X:[ 14 , 15 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 566 > X:[ 14 , 15 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 567 \rangle X: [14, 15] Y: [-3, -2]
```

```
Found Entropy: 0
<Window: 568 > X:[ 14 , 15 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 569 > X:[14, 15] Y:[-1, 0]
Found Entropy: 0
<Window: 570 > X:[ 14 , 15 ] Y:[ 0 , 1 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 571 > X:[ 14 , 15 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 572 > X:[ 14 , 15 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 573 > X:[ 14 , 15 ] Y:[ 3 , 4 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 574 > X:[ 14 , 15 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: 575} \rangle X: [15, 16] Y: [-9, -8]
Found Entropy: 0
<Window: 576 > X:[ 15 , 16 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 577 > X:[ 15 , 16 ] Y:[ -7 , -6 ]
Found Entropy: 0
\langle \text{Window}: 578 \rangle X: [15, 16] Y: [-6, -5]
Found Entropy: 0
\forall x \in X : [15, 16] Y : [-5, -4]
Found Entropy: 0
<Window: 580 > X:[ 15 , 16 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 581 > X:[ 15 , 16 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window: 582} \rangle X: [15, 16] Y: [-2, -1]
Found Entropy: 0
<Window: 583 > X:[ 15 , 16 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 584 > X:[ 15 , 16 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 585 > X:[ 15 , 16 ] Y:[ 1 , 2 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 586 > X:[ 15 , 16 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 587 > X:[ 15 , 16 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6931471805599453
```

```
<Window: 588 > X:[ 15 , 16 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 589 > X:[ 16 , 17 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 590 > X:[ 16 , 17 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 591 > X:[ 16 , 17 ] Y:[ -7 , -6 ]
Found Entropy: 0
\langle \text{Window}: 592 \rangle X: [16, 17] Y: [-6, -5]
Found Entropy: 0
<Window: 593 > X:[ 16 , 17 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 594 > X:[ 16 , 17 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: 595} \rangle X: [16, 17] Y: [-3, -2]
Found Entropy: 0
<Window: 596 > X:[ 16 , 17 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 597 > X:[ 16 , 17 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 598 > X:[ 16 , 17 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 599 > X:[ 16 , 17 ] Y:[ 1 , 2 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 600 > X:[ 16 , 17 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 601 > X:[ 16 , 17 ] Y:[ 3 , 4 ]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 602 > X:[ 16 , 17 ] Y:[ 4 , 5 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 603 > X:[ 17 , 18 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window: } 604 \rangle \text{ X:} [17, 18] \text{ Y:} [-8, -7]
Found Entropy: 0
<Window: 605 > X:[ 17 , 18 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 606 > X:[ 17 , 18 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 607 > X:[ 17 , 18 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 608 > X:[ 17 , 18 ] Y:[ -4 , -3 ]
```

```
Found Entropy: 0
<Window: 609 > X:[ 17 , 18 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 610 > X:[ 17 , 18 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 611 > X:[ 17 , 18 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 612 > X:[ 17 , 18 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 613 > X:[ 17 , 18 ] Y:[ 1 , 2 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 614 > X:[ 17 , 18 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 615 > X:[ 17 , 18 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 616 > X:[ 17 , 18 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 617 > X:[ 18 , 19 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 618 > X:[ 18 , 19 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 619 > X:[ 18 , 19 ] Y:[ -7 , -6 ]
Found Entropy: 0
\langle \text{Window: } 620 \rangle \text{ X:} [ 18 , 19 ] \text{ Y:} [ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 621 \rangle X: [18, 19] Y: [-5, -4]
Found Entropy: 0
<Window: 622 > X:[ 18 , 19 ] Y:[ -4 , -3 ]
Found Entropy: 0
\{Window: 623 > X:[18, 19] Y:[-3, -2]
Found Entropy: 0
\langle \text{Window}: 624 \rangle X: [18, 19] Y: [-2, -1]
Found Entropy: 0
<Window: 625 > X:[ 18 , 19 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 626 > X:[ 18 , 19 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 627 > X:[ 18 , 19 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 628 > X:[ 18 , 19 ] Y:[ 2 , 3 ]
Found a sample of class: 1
```

```
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 629 > X:[ 18 , 19 ] Y:[ 3 , 4 ]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.6365141682948128
<Window: 630 > X:[ 18 , 19 ] Y:[ 4 , 5 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
\langle \text{Window: } 631 \rangle \ \text{X:} [ 19 , 20 ] \ \text{Y:} [ -9 , -8 ]
Found Entropy: 0
\langle \text{Window: } 632 \rangle \text{ X:} [19, 20] \text{ Y:} [-8, -7]
Found Entropy: 0
<Window: 633 > X:[ 19 , 20 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 634 > X:[ 19 , 20 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 635 > X:[ 19 , 20 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 636 > X:[ 19 , 20 ] Y:[ -4 , -3 ]
Found Entropy: 0
\{Window: 637 > X:[19, 20] Y:[-3, -2]
Found Entropy: 0
<Window: 638 > X:[ 19 , 20 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 639 > X:[ 19 , 20 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 640 > X:[ 19 , 20 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 641 > X:[ 19 , 20 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 642 > X:[19, 20] Y:[2, 3]
Found Entropy: 0
<Window: 643 > X:[ 19 , 20 ] Y:[ 3 , 4 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 644 > X:[ 19 , 20 ] Y:[ 4 , 5 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 645 > X:[ 20 , 21 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window: 646} \rangle \text{ X:[ 20 , 21 ] Y:[ -8 , -7 ]}
```

```
Found Entropy: 0
<Window: 647 > X:[ 20 , 21 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 648 > X:[ 20 , 21 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 649 > X:[ 20 , 21 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window: } 650 \rangle \text{ X:} [ 20 , 21 ] \text{ Y:} [ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 651 \rangle X: [20, 21] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window: } 652 \rangle \text{ X:} [ 20 , 21 ] \text{ Y:} [ -2 , -1 ]
Found Entropy: 0
<Window: 653 > X:[ 20 , 21 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 654 > X:[ 20 , 21 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 655 > X:[ 20 , 21 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 656 > X:[ 20 , 21 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 657 > X:[ 20 , 21 ] Y:[ 3 , 4 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 658 > X:[ 20 , 21 ] Y:[ 4 , 5 ]
Found a sample of class: 2
Found Entropy: 0.0
Total Count: 658
Expected Count: 658
OKAY: True
----Done--- 8.391945190395347
Done!
-26 21 -9 5
You Can use this matrix now.
X \min = -26
X \max = 21
Y_min = -9
Y_max= 5
And the Matrix Shape: 47 * 14
<Window: 1 > X:[ -26 , -25 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 2 \rangle X:[-26, -25] Y:[-8, -7]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window: 3} \rangle \text{ X:[-26,-25] Y:[-7,-6]}
Found a sample of class: 0
```

```
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 4 \rangle X: [-26, -25] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 5 \rangle X: [-26, -25] Y: [-5, -4]
Found Entropy: 0
\{Window: 6 > X:[ -26 , -25 ] Y:[ -4 , -3 ]
Found Entropy: 0
\{\text{Window}: 7 > X: [-26, -25] Y: [-3, -2]\}
Found Entropy: 0
\langle \text{Window: 8 > X:[-26,-25] Y:[-2,-1]}
Found Entropy: 0
\langle \text{Window: 9 > X:[-26,-25] Y:[-1,0]}
Found Entropy: 0
<Window: 10 > X:[ -26 , -25 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 11 > X:[ -26 , -25 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window}: 12 \rangle X: [-26, -25] Y: [2, 3]
Found Entropy: 0
<Window: 13 > X:[ -26 , -25 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 14 > X:[ -26 , -25 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 15 \rangle X: [-25, -24] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 16 \rangle X: [-25, -24] Y: [-8, -7]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 17 > X: [-25, -24] Y: [-7, -6]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.5623351446188083
\langle \text{Window}: 18 \rangle X: [-25, -24] Y: [-6, -5]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 19 \rangle X: [-25, -24] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 20 \rangle X: [-25, -24] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 21 \rangle X: [-25, -24] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 22 \rangle X: [-25, -24] Y: [-2, -1]
```

```
Found Entropy: 0
<Window: 23 > X:[ -25 , -24 ] Y:[ -1 , 0 ]
Found Entropy: 0
\{\text{Window: } 24 > X:[-25, -24] \ Y:[0, 1]
Found Entropy: 0
<Window: 25 > X:[ -25 , -24 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 26 > X:[ -25 , -24 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 27 > X:[ -25 , -24 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window: 28} \rangle X: [-25, -24] Y: [4, 5]
Found Entropy: 0
\langle \text{Window: } 29 \rangle \text{ X:} [ -24 , -23 ] \text{ Y:} [ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 30 \rangle X: [-24, -23] Y: [-8, -7]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 31 \rangle X: [-24, -23] Y: [-7, -6]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.5623351446188083
\langle \text{Window}: 32 \rangle X: [-24, -23] Y: [-6, -5]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 33 \rangle X: [-24, -23] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 34 \rangle X: [-24, -23] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 35 \rangle X: [-24, -23] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 36 \rangle X: [-24, -23] Y: [-2, -1]
Found Entropy: 0
<Window: 37 > X:[-24, -23] Y:[-1, 0]
Found Entropy: 0
\langle \text{Window: } 38 \rangle \text{ X:[} -24 , -23 ] \text{ Y:[} 0 , 1 ]
Found Entropy: 0
<Window: 39 > X:[ -24 , -23 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 40 > X:[ -24 , -23 ] Y:[ 2 , 3 ]
Found Entropy: 0
\forall x \in X : [-24, -23] Y : [3, 4]
Found Entropy: 0
\forall x \in X : [-24, -23] Y : [4, 5]
Found Entropy: 0
```

```
\langle \text{Window}: 43 \rangle X: [-23, -22] Y: [-9, -8]
Found Entropy: 0
\{\text{Window: } 44 > \text{X:} [ -23 , -22 ] \text{Y:} [ -8 , -7 ] \}
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window: } 45 \rangle \text{ X: } [-23, -22] \text{ Y: } [-7, -6]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 1.0397207708399179
\{\text{Window}: 46 > X: [-23, -22] Y: [-6, -5]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 47 \rangle X: [-23, -22] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 48 \rangle X: [-23, -22] Y: [-4, -3]
Found Entropy: 0
\{Window: 49 > X: [ -23 , -22 ] Y: [ -3 , -2 ] <math>\}
Found Entropy: 0
\langle \text{Window}: 50 \rangle X: [-23, -22] Y: [-2, -1]
Found Entropy: 0
<Window: 51 > X:[ -23 , -22 ] Y:[ -1 , 0 ]
Found Entropy: 0
\langle \text{Window}: 52 \rangle X: [-23, -22] Y: [0, 1]
Found Entropy: 0
<Window: 53 > X:[ -23 , -22 ] Y:[ 1 , 2 ]
Found Entropy: 0
\forall x \in X : [-23, -22] Y : [2, 3]
Found Entropy: 0
<Window: 55 > X:[ -23 , -22 ] Y:[ 3 , 4 ]
Found Entropy: 0
\{\text{Window: 56} > \text{X:[-23,-22]} \text{Y:[4,5]}
Found Entropy: 0
\langle \text{Window: 57} \rangle \text{ X: [ -22 , -21 ] Y: [ -9 , -8 ]}
Found Entropy: 0
\langle \text{Window: 58} \rangle \text{ X:} [-22, -21] \text{ Y:} [-8, -7]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 59 \rangle X: [-22, -21] Y: [-7, -6]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window: } 60 \rangle \text{ X: [} -22 , -21 ] \text{ Y: [} -6 , -5 ]
Found Entropy: 0
\{\text{Window: } 61 > \text{X:} [-22, -21] \text{ Y:} [-5, -4] \}
```

```
Found Entropy: 0
\forall \text{Window: } 62 > X:[-22, -21] Y:[-4, -3]
Found Entropy: 0
\forall \text{Window: } 63 > X:[-22, -21] Y:[-3, -2]
Found Entropy: 0
<Window: 64 > X:[ -22 , -21 ] Y:[ -2 , -1 ]
Found Entropy: 0
\langle \text{Window: } 65 \rangle \ \text{X:[} -22 , -21 \ ] \ \text{Y:[} -1 , 0 \ ]
Found Entropy: 0
<Window: 66 > X:[ -22 , -21 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 67 > X:[ -22 , -21 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 68 > X:[ -22 , -21 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 69 > X:[ -22 , -21 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window: 70} \rangle X: [-22, -21] Y: [4, 5]
Found Entropy: 0
\langle \text{Window}: 71 > X:[-21, -20] Y:[-9, -8]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 72 \rangle X: [-21, -20] Y: [-8, -7]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 0.6365141682948128
\langle \text{Window}: 73 \rangle X: [-21, -20] Y: [-7, -6]
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 0.45056120886630463
\langle \text{Window}: 74 \rangle X: [-21, -20] Y: [-6, -5]
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 0.6931471805599453
\langle \text{Window}: 75 \rangle X: [-21, -20] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 76 \rangle X: [-21, -20] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 77 > X:[-21, -20] Y:[-3, -2]
Found Entropy: 0
\{Window: 78 > X:[ -21 , -20 ] Y:[ -2 , -1 ]
Found Entropy: 0
\langle \text{Window: 79} \rangle X: [-21, -20] Y: [-1, 0]
```

```
Found Entropy: 0
<Window: 80 > X:[ -21 , -20 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 81 > X:[ -21 , -20 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 82 > X:[ -21 , -20 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 83 > X:[ -21 , -20 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 84 > X:[ -21 , -20 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 85 \rangle \text{ X: } [-20, -19] \text{ Y: } [-9, -8]
Found Entropy: 0
<Window: 86 > X:[ -20 , -19 ] Y:[ -8 , -7 ]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window: } 87 \rangle \text{ X: } [-20, -19] \text{ Y: } [-7, -6]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 1.0397207708399179
\langle \text{Window: 88} \rangle \text{ X: [ -20 , -19 ] Y: [ -6 , -5 ]}
Found Entropy: 0
\langle \text{Window: 89} \rangle \text{ X: [ -20 , -19 ] Y: [ -5 , -4 ]}
Found Entropy: 0
\langle \text{Window: } 90 \rangle \text{ X: [ } -20 \text{ , } -19 \text{ ] } \text{ Y: [ } -4 \text{ , } -3 \text{ ]}
Found Entropy: 0
<Window: 91 > X:[ -20 , -19 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window: } 92 \rangle \text{ X: [ } -20 \text{ , } -19 \text{ ] } \text{ Y: [ } -2 \text{ , } -1 \text{ ]}
Found Entropy: 0
\langle \text{Window: 93} \rangle \text{ X: [ -20 , -19 ] Y: [ -1 , 0 ]}
Found Entropy: 0
<Window: 94 > X:[ -20 , -19 ] Y:[ 0 , 1 ]
Found Entropy: 0
\{\text{Window: 95} > \text{X:[-20,-19]} \text{Y:[1,2]}
Found Entropy: 0
<Window: 96 > X:[ -20 , -19 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 97 > X:[ -20 , -19 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 98 > X:[ -20 , -19 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: 99} \rangle \text{ X:} [-19, -18] \text{ Y:} [-9, -8]
Found Entropy: 0
\langle \text{Window: } 100 \rangle \text{ X:[} -19 , -18 ] \text{ Y:[} -8 , -7 ]
Found a sample of class: 0
```

```
Found Entropy: 0.0
<Window: 101 > X:[ -19 , -18 ] Y:[ -7 , -6 ]
Found Entropy: 0
\{Window: 102 > X:[-19, -18] Y:[-6, -5]
Found a sample of class: 0
Found Entropy: 0.0
\{Window: 103 > X: [-19, -18] Y: [-5, -4] 
Found Entropy: 0
\{Window: 104 > X:[-19, -18] Y:[-4, -3]
Found Entropy: 0
\langle \text{Window}: 105 \rangle X: [-19, -18] Y: [-3, -2]
Found Entropy: 0
<Window: 106 > X:[ -19 , -18 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 107 > X:[ -19 , -18 ] Y:[ -1 , 0 ]
Found Entropy: 0
\langle \text{Window: } 108 \rangle \ \text{X:[} -19 \ , -18 \ ] \ \text{Y:[} 0 \ , 1 \ ]
Found Entropy: 0
\forall 109 > X:[-19, -18] Y:[1, 2]
Found Entropy: 0
<Window: 110 > X:[ -19 , -18 ] Y:[ 2 , 3 ]
Found Entropy: 0
\langle \text{Window: } 111 \rangle \ \text{X:[} -19 \ , -18 \ ] \ \text{Y:[} 3 \ , 4 \ ]
Found Entropy: 0
<Window: 112 > X:[ -19 , -18 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 113 \rangle \text{ X:[} -18 , -17 ] \text{ Y:[} -9 , -8 ]
Found Entropy: 0
<Window: 114 > X:[ -18 , -17 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window}: 115 \rangle X: [-18, -17] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 116 \rangle X: [-18, -17] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 117 \rangle X: [-18, -17] Y: [-5, -4]
Found Entropy: 0
<Window: 118 > X:[ -18 , -17 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 119 \rangle X: [-18, -17] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window: } 120 \rangle \text{ X:[} -18 , -17 ] \text{ Y:[} -2 , -1 ]
Found Entropy: 0
<Window: 121 > X:[ -18 , -17 ] Y:[ -1 , 0 ]
Found Entropy: 0
\forall \text{Window: } 122 > X:[-18, -17] Y:[0, 1]
Found Entropy: 0
\forall 123 > X:[-18, -17] Y:[1, 2]
Found Entropy: 0
```

```
\langle \text{Window: } 124 \rangle \ \text{X:[} -18 \ , -17 \ ] \ \text{Y:[} 2 \ , 3 \ ]
Found Entropy: 0
\langle \text{Window: } 125 \rangle X:[-18, -17] Y:[3, 4]
Found Entropy: 0
<Window: 126 > X:[ -18 , -17 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 127 > X:[ -17 , -16 ] Y:[ -9 , -8 ]
Found Entropy: 0
\{Window: 128 > X:[-17, -16] Y:[-8, -7]
Found Entropy: 0
\langle \text{Window}: 129 \rangle X: [-17, -16] Y: [-7, -6]
Found Entropy: 0
<Window: 130 > X:[ -17 , -16 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 131 \rangle \ \text{X:[} -17 \ , -16 \ ] \ \text{Y:[} -5 \ , -4 \ ]
Found Entropy: 0
\langle \text{Window}: 132 \rangle X: [-17, -16] Y: [-4, -3]
Found Entropy: 0
<Window: 133 > X:[ -17 , -16 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 134 > X:[ -17 , -16 ] Y:[ -2 , -1 ]
Found Entropy: 0
\langle \text{Window: } 135 \rangle \text{ X:[} -17 \text{ , } -16 \text{] } \text{ Y:[} -1 \text{ , } 0 \text{]}
Found Entropy: 0
<Window: 136 > X:[ -17 , -16 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window: } 137 \rangle \ \text{X:[} -17 \ , -16 \ ] \ \text{Y:[} 1 \ , 2 \ ]
Found Entropy: 0
<Window: 138 > X:[ -17 , -16 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 139 > X:[ -17 , -16 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 140 > X:[ -17 , -16 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 141 > X: [-16, -15] Y: [-9, -8]
Found Entropy: 0
\{Window: 142 > X:[-16, -15] Y:[-8, -7]
Found Entropy: 0
<Window: 143 > X:[ -16 , -15 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 144 > X:[ -16 , -15 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 145 > X:[ -16 , -15 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 146 \rangle X: [-16, -15] Y: [-4, -3]
Found Entropy: 0
<Window: 147 > X:[ -16 , -15 ] Y:[ -3 , -2 ]
Found Entropy: 0
```

```
\langle \text{Window: } 148 \rangle \ \text{X:[} -16 \ , -15 \ ] \ \text{Y:[} -2 \ , -1 \ ]
Found Entropy: 0
<Window: 149 > X:[ -16 , -15 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 150 > X:[ -16 , -15 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 151 > X:[ -16 , -15 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 152 > X:[ -16 , -15 ] Y:[ 2 , 3 ]
Found Entropy: 0
\langle \text{Window}: 153 \rangle X: [-16, -15] Y: [3, 4]
Found Entropy: 0
<Window: 154 > X:[ -16 , -15 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 155 \rangle X: [-15, -14] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 156 \rangle X: [-15, -14] Y: [-8, -7]
Found Entropy: 0
<Window: 157 > X:[ -15 , -14 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 158 > X:[ -15 , -14 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 159 \rangle X: [-15, -14] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 160 \rangle X: [-15, -14] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 161 \rangle X: [-15, -14] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 162 \rangle X: [-15, -14] Y: [-2, -1]
Found Entropy: 0
<Window: 163 > X:[ -15 , -14 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 164 > X:[ -15 , -14 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 165 > X:[ -15 , -14 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 166 > X:[ -15 , -14 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 167 > X:[ -15 , -14 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 168 > X:[ -15 , -14 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 169 > X:[ -14 , -13 ] Y:[ -9 , -8 ]
Found Entropy: 0
\forall 170 > X:[-14, -13] Y:[-8, -7]
Found Entropy: 0
\forall X: [-14, -13] Y: [-7, -6]
Found Entropy: 0
```

```
\forall \text{Window: } 172 > X:[-14, -13] Y:[-6, -5]
Found Entropy: 0
<Window: 173 > X:[ -14 , -13 ] Y:[ -5 , -4 ]
Found Entropy: 0
\{Window: 174 > X:[ -14 , -13 ] Y:[ -4 , -3 ]
Found Entropy: 0
\forall X: [-14, -13] Y: [-3, -2]
Found Entropy: 0
\{Window: 176 > X:[-14, -13] Y:[-2, -1]
Found Entropy: 0
\langle \text{Window}: 177 > X:[-14, -13] Y:[-1, 0]
Found Entropy: 0
<Window: 178 > X:[ -14 , -13 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window: } 179 \rangle X:[-14, -13] Y:[1, 2]
Found Entropy: 0
\langle \text{Window: } 180 \rangle \ \text{X:[} -14 \ , -13 \ ] \ \text{Y:[} 2 \ , 3 \ ]
Found Entropy: 0
<Window: 181 > X:[ -14 , -13 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 182 > X:[ -14 , -13 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 183 > X:[ -13 , -12 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 184 \rangle X: [-13, -12] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window: } 185 \rangle \text{ X:[} -13 , -12 ] \text{ Y:[} -7 , -6 ]
Found Entropy: 0
<Window: 186 > X:[ -13 , -12 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 187 \rangle \text{ X:[} -13 , -12 ] \text{ Y:[} -5 , -4 ]
Found Entropy: 0
\forall Window: 188 > X:[ -13 , -12 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 189 \rangle X: [-13, -12] Y: [-3, -2]
Found Entropy: 0
\{Window: 190 > X:[-13, -12] Y:[-2, -1]
Found Entropy: 0
\langle \text{Window}: 191 \rangle X: [-13, -12] Y: [-1, 0]
Found Entropy: 0
<Window: 192 > X:[ -13 , -12 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window: 193} \rangle X: [-13, -12] Y: [1, 2]
Found Entropy: 0
\langle \text{Window: } 194 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} 2 \ , 3 \ ]
Found Entropy: 0
<Window: 195 > X:[ -13 , -12 ] Y:[ 3 , 4 ]
Found Entropy: 0
```

```
\langle \text{Window}: 196 \rangle X: [-13, -12] Y: [4, 5]
Found Entropy: 0
\forall \text{Window: } 197 > X:[-12, -11] Y:[-9, -8]
Found Entropy: 0
\{Window: 198 > X:[-12, -11] Y:[-8, -7]
Found Entropy: 0
<Window: 199 > X:[ -12 , -11 ] Y:[ -7 , -6 ]
Found Entropy: 0
\{Window: 200 \} X: [ -12 , -11 ] Y: [ -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 201 \rangle X: [-12, -11] Y: [-5, -4]
Found Entropy: 0
<Window: 202 > X:[ -12 , -11 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 203 \rangle X: [-12, -11] Y: [-3, -2]
Found Entropy: 0
\forall \text{Window: } 204 > X:[-12, -11] Y:[-2, -1]
Found Entropy: 0
<Window: 205 > X:[-12, -11] Y:[-1, 0]
Found Entropy: 0
<Window: 206 > X:[ -12 , -11 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window: } 207 \rangle \text{ X:[} -12 , -11 ] \text{ Y:[} 1 , 2 ]
Found Entropy: 0
\langle \text{Window: } 208 \rangle \ \text{X:[} -12 \ , -11 \ ] \ \text{Y:[} 2 \ , 3 \ ]
Found Entropy: 0
\langle \text{Window: } 209 \rangle \ X:[ -12 , -11 ] \ Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 210 > X:[ -12 , -11 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle Window: 211 \rangle X:[-11, -10] Y:[-9, -8]
Found Entropy: 0
\langle \text{Window}: 212 \rangle X: [-11, -10] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 213 \rangle X: [-11, -10] Y: [-7, -6]
Found Entropy: 0
\{Window: 214 > X:[-11, -10] Y:[-6, -5]
Found Entropy: 0
<Window: 215 > X:[ -11 , -10 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 216 > X:[ -11 , -10 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 217 > X:[ -11 , -10 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 218 > X:[ -11 , -10 ] Y:[ -2 , -1 ]
Found Entropy: 0
\langle \text{Window: } 219 \rangle X:[-11, -10] Y:[-1, 0]
Found Entropy: 0
```

```
\langle \text{Window: } 220 \rangle X:[-11, -10] Y:[0, 1]
Found Entropy: 0
\langle \text{Window: } 221 \rangle X:[-11, -10] Y:[1, 2]
Found Entropy: 0
<Window: 222 > X:[-11, -10] Y:[2, 3]
Found Entropy: 0
<Window: 223 > X:[ -11 , -10 ] Y:[ 3 , 4 ]
Found Entropy: 0
\{Window: 224 > X:[-11, -10] Y:[4, 5]
Found Entropy: 0
<Window: 225 > X:[ -10 , -9 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 226 \rangle X:[-10, -9] Y:[-8, -7]
Found Entropy: 0
\langle \text{Window: } 227 \rangle \text{ X:[} -10 , -9 ] \text{ Y:[} -7 , -6 ]
Found Entropy: 0
\langle \text{Window}: 228 \rangle X: [-10, -9] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 229 \rangle X:[-10, -9] Y:[-5, -4]
Found Entropy: 0
\langle \text{Window}: 230 \rangle X: [-10, -9] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window: } 231 \rangle \text{ X:[} -10 , -9 ] \text{ Y:[} -3 , -2 ]
Found Entropy: 0
\langle \text{Window: } 232 \rangle \text{ X:[} -10 , -9 ] \text{ Y:[} -2 , -1 ]
Found Entropy: 0
\langle \text{Window: } 233 \rangle X: [-10, -9] Y: [-1, 0]
Found Entropy: 0
<Window: 234 > X:[ -10 , -9 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 235 > X:[ -10 , -9 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 236 > X:[ -10 , -9 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 237 > X:[ -10 , -9 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 238 > X:[ -10 , -9 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 239 \rangle X: [-9, -8] Y: [-9, -8]
Found Entropy: 0
<Window: 240 > X:[ -9 , -8 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window: } 241 \rangle \ \text{X:[} -9 \ , -8 \ ] \ \text{Y:[} -7 \ , -6 \ ]
Found Entropy: 0
<Window: 242 > X:[ -9 , -8 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 243 > X:[ -9 , -8 ] Y:[ -5 , -4 ]
Found Entropy: 0
```

```
\langle \text{Window}: 244 \rangle X: [-9, -8] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 245 \rangle X: [-9, -8] Y: [-3, -2]
Found Entropy: 0
\{Window: 246 > X: [ -9 , -8 ] Y: [ -2 , -1 ] 
Found Entropy: 0
\langle \text{Window}: 247 \rangle X:[-9, -8] Y:[-1, 0]
Found Entropy: 0
<Window: 248 > X:[ -9 , -8 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle Window: 249 \rangle X: [-9, -8] Y: [1, 2]
Found Entropy: 0
\langle \text{Window}: 250 \rangle X:[-9, -8] Y:[2, 3]
Found Entropy: 0
<Window: 251 > X:[ -9 , -8 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window}: 252 \rangle X:[-9, -8] Y:[4, 5]
Found Entropy: 0
<Window: 253 > X:[-8, -7] Y:[-9, -8]
Found Entropy: 0
\langle \text{Window}: 254 \rangle X: [-8, -7] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 255 \rangle X: [-8, -7] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 256 \rangle X: [-8, -7] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 257 \rangle X: [-8, -7] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 258 \rangle X: [-8, -7] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 259 \rangle X: [-8, -7] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 260 \rangle X: [-8, -7] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 261 \rangle X: [-8, -7] Y: [-1, 0]
Found Entropy: 0
\langle \text{Window}: 262 \rangle X: [-8, -7] Y: [0, 1]
Found Entropy: 0
\langle \text{Window}: 263 \rangle X: [-8, -7] Y: [1, 2]
Found Entropy: 0
<Window: 264 > X:[-8, -7] Y:[2, 3]
Found Entropy: 0
<Window: 265 > X:[ -8 , -7 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 266 > X:[ -8 , -7 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 267 > X:[ -7 , -6 ] Y:[ -9 , -8 ]
Found Entropy: 0
```

```
\langle \text{Window}: 268 \rangle X: [-7, -6] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window: } 269 \rangle \text{ X:[} -7 , -6 ] \text{ Y:[} -7 , -6 ]
Found Entropy: 0
\{Window: 270 > X:[-7,-6] Y:[-6,-5]
Found Entropy: 0
\langle \text{Window}: 271 \rangle X: [-7, -6] Y: [-5, -4]
Found Entropy: 0
\{Window: 272 > X:[-7,-6] Y:[-4,-3]
Found Entropy: 0
\forall X:[-7,-6] Y:[-3,-2]
Found Entropy: 0
\forall x = 1 
Found Entropy: 0
<Window: 275 > X:[-7, -6] Y:[-1, 0]
Found Entropy: 0
<Window: 276 > X:[ -7 , -6 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 277 > X:[-7, -6] Y:[1, 2]
Found Entropy: 0
\langle \text{Window}: 278 \rangle X: [-7, -6] Y: [2, 3]
Found Entropy: 0
<Window: 279 > X:[ -7 , -6 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 280 > X:[ -7 , -6 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 281 \rangle \text{ X:} [ -6 , -5 ] \text{ Y:} [ -9 , -8 ]
Found Entropy: 0
\langle \text{Window: } 282 \rangle X: [-6, -5] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window: 283} \rangle X: [-6, -5] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window: } 284 \rangle \ \text{X:[} -6 \ , -5 \ ] \ \text{Y:[} -6 \ , -5 \ ]
Found Entropy: 0
\langle \text{Window}: 285 \rangle X: [-6, -5] Y: [-5, -4]
Found Entropy: 0
<Window: 286 > X:[ -6 , -5 ] Y:[ -4 , -3 ]
Found Entropy: 0
\{Window: 287 > X:[ -6 , -5 ] Y:[ -3 , -2 ]
Found Entropy: 0
\forall X: [-6, -5] Y: [-2, -1]
Found Entropy: 0
<Window: 289 > X:[ -6 , -5 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 290 > X:[ -6 , -5 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 291 > X:[ -6 , -5 ] Y:[ 1 , 2 ]
Found Entropy: 0
```

```
\langle \text{Window}: 292 \rangle X: [-6, -5] Y: [2, 3]
Found Entropy: 0
<Window: 293 > X:[ -6 , -5 ] Y:[ 3 , 4 ]
Found Entropy: 0
\{\text{Window: } 294 > X:[-6,-5] Y:[4,5]
Found Entropy: 0
\langle \text{Window}: 295 \rangle X: [-5, -4] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 296 \rangle X: [-5, -4] Y: [-8, -7]
Found Entropy: 0
\forall x = 100 \text{ Window} : 297 > x : [ -5 , -4 ] Y : [ -7 , -6 ]
Found Entropy: 0
<Window: 298 > X:[ -5 , -4 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 299 \rangle X:[-5, -4] Y:[-5, -4]
Found Entropy: 0
\forall X: [-5, -4] Y: [-4, -3]
Found Entropy: 0
<Window: 301 > X:[ -5 , -4 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window}: 302 \rangle X: [-5, -4] Y: [-2, -1]
Found Entropy: 0
<Window: 303 > X:[ -5 , -4 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 304 > X:[ -5 , -4 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 305 > X:[ -5 , -4 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 306 > X:[ -5 , -4 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 307 > X:[ -5 , -4 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 308 > X:[ -5 , -4 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 309 \rangle X: [-4, -3] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 310 \rangle X: [-4, -3] Y: [-8, -7]
Found Entropy: 0
\{Window: 311 > X: [ -4 , -3 ] Y: [ -7 , -6 ] 
Found Entropy: 0
\forall X:[-4,-3] Y:[-6,-5]
Found Entropy: 0
\langle \text{Window}: 313 \rangle X: [-4, -3] Y: [-5, -4]
Found Entropy: 0
<Window: 314 > X:[ -4 , -3 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 315 > X:[ -4 , -3 ] Y:[ -3 , -2 ]
Found Entropy: 0
```

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\langle \text{Window}: 316 \rangle X: [-4, -3] Y: [-2, -1]
Found Entropy: 0
<Window: 317 > X:[-4, -3] Y:[-1, 0]
Found Entropy: 0
\langle \text{Window}: 318 \rangle X: [-4, -3] Y: [0, 1]
Found Entropy: 0
\langle \text{Window}: 319 \rangle X: [-4, -3] Y: [1, 2]
Found Entropy: 0
\langle \text{Window}: 320 \rangle X: [-4, -3] Y: [2, 3]
Found Entropy: 0
\langle \text{Window}: 321 \rangle X: [-4, -3] Y: [3, 4]
Found Entropy: 0
\langle \text{Window}: 322 \rangle X: [-4, -3] Y: [4, 5]
Found Entropy: 0
\langle \text{Window}: 323 \rangle X: [-3, -2] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 324 \rangle X: [-3, -2] Y: [-8, -7]
Found Entropy: 0
\forall X: [-3, -2] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 326 \rangle X: [-3, -2] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 327 \rangle X: [-3, -2] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 328 \rangle X: [-3, -2] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 329 \rangle X: [-3, -2] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 330 \rangle X: [-3, -2] Y: [-2, -1]
Found Entropy: 0
<Window: 331 > X:[ -3 , -2 ] Y:[ -1 , 0 ]
Found Entropy: 0
\langle \text{Window}: 332 \rangle X: [-3, -2] Y: [0, 1]
Found Entropy: 0
\langle \text{Window}: 333 \rangle X: [-3, -2] Y: [1, 2]
Found Entropy: 0
\langle \text{Window}: 334 \rangle X: [-3, -2] Y: [2, 3]
Found Entropy: 0
\langle \text{Window}: 335 \rangle X:[-3, -2] Y:[3, 4]
Found Entropy: 0
<Window: 336 > X:[ -3 , -2 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 337 \rangle \text{ X:[} -2 , -1 ] \text{ Y:[} -9 , -8 ]
Found Entropy: 0
<Window: 338 > X:[ -2 , -1 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 339 > X:[ -2 , -1 ] Y:[ -7 , -6 ]
Found Entropy: 0
```

```
\langle \text{Window}: 340 \rangle X: [-2, -1] Y: [-6, -5]
Found Entropy: 0
\forall x : [-2, -1] \ Y: [-5, -4]
Found Entropy: 0
\{Window: 342 > X: [ -2 , -1 ] Y: [ -4 , -3 ] <math>\}
Found Entropy: 0
\langle \text{Window}: 343 \rangle X: [-2, -1] Y: [-3, -2]
Found Entropy: 0
\{Window: 344 > X: [ -2 , -1 ] Y: [ -2 , -1 ] 
Found Entropy: 0
<Window: 345 > X:[-2, -1] Y:[-1, 0]
Found Entropy: 0
<Window: 346 > X:[ -2 , -1 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 347 \rangle X:[-2,-1] Y:[1,2]
Found Entropy: 0
<Window: 348 > X:[ -2 , -1 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 349 > X:[ -2 , -1 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window}: 350 \rangle X: [-2, -1] Y: [4, 5]
Found Entropy: 0
<Window: 351 > X:[ -1 , 0 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window: } 352 \rangle \text{ X:} [-1, 0] \text{ Y:} [-8, -7]
Found Entropy: 0
<Window: 353 > X:[ -1 , 0 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 354 > X:[ -1 , 0 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 355 > X:[-1, 0] Y:[-5, -4]
Found Entropy: 0
<Window: 356 > X:[ -1 , 0 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 357 \rangle X: [-1, 0] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 358 \rangle X: [-1, 0] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 359 \rangle X: [-1, 0] Y: [-1, 0]
Found Entropy: 0
<Window: 360 > X:[-1, 0] Y:[0, 1]
Found Entropy: 0
<Window: 361 > X:[ -1 , 0 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 362 > X:[ -1 , 0 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 363 > X:[ -1 , 0 ] Y:[ 3 , 4 ]
Found Entropy: 0
```

```
<Window: 364 > X:[ -1 , 0 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 365 > X:[ 0 , 1 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 366 > X:[ 0 , 1 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 367 > X:[0,1] Y:[-7,-6]
Found Entropy: 0
<Window: 368 > X:[ 0 , 1 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 369 > X:[ 0 , 1 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 370 \rangle X: [0, 1] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 371 \rangle X:[0,1] Y:[-3,-2]
Found Entropy: 0
<Window: 372 > X:[0, 1] Y:[-2, -1]
Found Entropy: 0
<Window: 373 > X:[0, 1] Y:[-1, 0]
Found Entropy: 0
<Window: 374 > X:[ 0 , 1 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 375 > X:[ 0 , 1 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 376 > X:[ 0 , 1 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 377 > X:[ 0 , 1 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 378 > X:[ 0 , 1 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 379 \rangle X:[1,2] Y:[-9,-8]
Found Entropy: 0
<Window: 380 > X:[1,2] Y:[-8,-7]
Found Entropy: 0
\{\text{Window: } 381 > X:[1,2] Y:[-7,-6]
Found Entropy: 0
\{\text{Window: } 382 > X:[1,2] Y:[-6,-5]
Found Entropy: 0
\langle \text{Window}: 383 \rangle X: [1, 2] Y: [-5, -4]
Found Entropy: 0
<Window: 384 > X:[1, 2] Y:[-4, -3]
Found Entropy: 0
\langle \text{Window}: 385 \rangle X: [1, 2] Y: [-3, -2]
Found Entropy: 0
<Window: 386 > X:[ 1 , 2 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 387 > X:[ 1 , 2 ] Y:[ -1 , 0 ]
Found Entropy: 0
```

```
<Window: 388 > X:[ 1 , 2 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 389 \rangle X:[1,2] Y:[1,2]
Found Entropy: 0
\langle Window: 390 \rangle X:[1,2] Y:[2,3]
Found Entropy: 0
\langle Window: 391 \rangle X:[1,2] Y:[3,4]
Found Entropy: 0
\{\text{Window: } 392 > X:[1,2] Y:[4,5]
Found Entropy: 0
<Window: 393 > X:[ 2 , 3 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 394 \rangle X: [2, 3] Y: [-8, -7]
Found Entropy: 0
<Window: 395 > X:[ 2 , 3 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 396 > X:[ 2 , 3 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 397 > X:[ 2 , 3 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 398 > X:[ 2 , 3 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 399 \rangle X: [2, 3] Y: [-3, -2]
Found Entropy: 0
<Window: 400 > X:[ 2 , 3 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 401 > X:[ 2 , 3 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 402 > X:[2,3] Y:[0,1]
Found Entropy: 0
<Window: 403 > X:[ 2 , 3 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 404 > X:[2,3] Y:[2,3]
Found Entropy: 0
<Window: 405 > X:[2,3] Y:[3,4]
Found Entropy: 0
<Window: 406 > X:[ 2 , 3 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 407 > X:[3,4] Y:[-9,-8]
Found Entropy: 0
<Window: 408 > X:[3, 4] Y:[-8, -7]
Found Entropy: 0
<Window: 409 > X:[3,4] Y:[-7,-6]
Found Entropy: 0
<Window: 410 > X:[3, 4] Y:[-6, -5]
Found Entropy: 0
<Window: 411 > X:[3, 4] Y:[-5, -4]
Found Entropy: 0
```

```
\langle \text{Window}: 412 \rangle X:[3,4] Y:[-4,-3]
Found Entropy: 0
\langle \text{Window}: 413 \rangle X: [3, 4] Y: [-3, -2]
Found Entropy: 0
\{\text{Window: } 414 > X:[3,4] Y:[-2,-1]
Found Entropy: 0
<Window: 415 > X:[ 3 , 4 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 416 > X:[3, 4] Y:[0, 1]
Found Entropy: 0
<Window: 417 > X:[ 3 , 4 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 418 > X:[3, 4] Y:[2, 3]
Found Entropy: 0
<Window: 419 > X:[3, 4] Y:[3, 4]
Found Entropy: 0
<Window: 420 > X:[3, 4] Y:[4, 5]
Found Entropy: 0
<Window: 421 > X:[4,5] Y:[-9,-8]
Found Entropy: 0
<Window: 422 > X:[4,5] Y:[-8,-7]
Found Entropy: 0
<Window: 423 > X:[ 4 , 5 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 424 > X:[ 4 , 5 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 425 > X:[ 4 , 5 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 426 > X:[ 4 , 5 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 427 \rangle X: [4, 5] Y: [-3, -2]
Found Entropy: 0
\{\text{Window: } 428 > X: [4, 5] Y: [-2, -1]
Found Entropy: 0
<Window: 429 > X:[4,5] Y:[-1,0]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 430 > X:[ 4 , 5 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 431 > X:[ 4 , 5 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 432 > X:[ 4 , 5 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 433 > X:[ 4 , 5 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 434 > X:[4,5] Y:[4,5]
Found Entropy: 0
<Window: 435 > X:[5,6] Y:[-9,-8]
```

```
Found Entropy: 0
<Window: 436 > X:[5,6]Y:[-8,-7]
Found Entropy: 0
<Window: 437 > X:[5,6] Y:[-7,-6]
Found Entropy: 0
<Window: 438 > X:[5,6] Y:[-6,-5]
Found Entropy: 0
<Window: 439 > X:[5,6] Y:[-5,-4]
Found Entropy: 0
<Window: 440 > X:[5,6] Y:[-4,-3]
Found Entropy: 0
<Window: 441 > X:[5,6] Y:[-3,-2]
Found Entropy: 0
\langle \text{Window}: 442 \rangle X: [5, 6] Y: [-2, -1]
Found Entropy: 0
<Window: 443 > X:[5,6] Y:[-1,0]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.6365141682948128
<Window: 444 > X:[ 5 , 6 ] Y:[ 0 , 1 ]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 445 > X:[ 5 , 6 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 446 > X:[5,6] Y:[2,3]
Found Entropy: 0
<Window: 447 > X:[5,6] Y:[3,4]
Found Entropy: 0
<Window: 448 > X:[5,6] Y:[4,5]
Found Entropy: 0
<Window: 449 > X:[ 6 , 7 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 450 > X:[6,7] Y:[-8,-7]
Found Entropy: 0
\{\text{Window: } 451 > X: [6, 7] Y: [-7, -6]
Found Entropy: 0
\{\text{Window: } 452 > X: [6, 7] Y: [-6, -5]
Found Entropy: 0
<Window: 453 > X:[6, 7] Y:[-5, -4]
Found Entropy: 0
<Window: 454 > X:[6,7] Y:[-4,-3]
Found Entropy: 0
<Window: 455 > X:[6,7] Y:[-3,-2]
Found Entropy: 0
<Window: 456 > X:[6,7] Y:[-2,-1]
Found Entropy: 0
```

```
<Window: 457 > X:[6,7] Y:[-1,0]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.6365141682948128
<Window: 458 > X:[6,7] Y:[0,1]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
\{\text{Window}: 459 > X: [6, 7] Y: [1, 2]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 460 > X:[ 6 , 7 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 461 > X:[ 6 , 7 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 462 > X:[ 6 , 7 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 463 > X:[7,8] Y:[-9,-8]
Found Entropy: 0
<Window: 464 > X:[ 7 , 8 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 465 > X:[7,8] Y:[-7,-6]
Found Entropy: 0
\langle Window: 466 \rangle X: [7, 8] Y: [-6, -5]
Found Entropy: 0
<Window: 467 > X:[7,8] Y:[-5,-4]
Found Entropy: 0
<Window: 468 > X:[ 7 , 8 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 469 > X:[ 7 , 8 ] Y:[ -3 , -2 ]
Found Entropy: 0
\{\text{Window: } 470 > \text{X:} [7, 8] \text{ Y:} [-2, -1]
Found a sample of class: 1
Found Entropy: 0.0
\langle Window: 471 \rangle X:[7,8] Y:[-1,0]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 472 > X:[7,8] Y:[0,1]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 473 > X:[ 7 , 8 ] Y:[ 1 , 2 ]
Found Entropy: 0
```

```
<Window: 474 > X:[7,8] Y:[2,3]
Found Entropy: 0
<Window: 475 > X:[7,8] Y:[3,4]
Found Entropy: 0
<Window: 476 > X:[ 7 , 8 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 477 \rangle X: [8, 9] Y: [-9, -8]
Found Entropy: 0
\langle Window: 478 \rangle X:[8,9] Y:[-8,-7]
Found Entropy: 0
\langle Window: 479 \rangle X: [8, 9] Y: [-7, -6]
Found Entropy: 0
<Window: 480 > X:[8,9] Y:[-6,-5]
Found Entropy: 0
<Window: 481 > X:[8,9] Y:[-5,-4]
Found Entropy: 0
<Window: 482 > X:[8,9] Y:[-4,-3]
Found Entropy: 0
<Window: 483 > X:[8, 9] Y:[-3, -2]
Found Entropy: 0
<Window: 484 > X:[8,9] Y:[-2,-1]
Found Entropy: 0
<Window: 485 > X:[8,9] Y:[-1,0]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.6365141682948128
<Window: 486 > X:[ 8 , 9 ] Y:[ 0 , 1 ]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 487 > X:[8, 9] Y:[1, 2]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 488 > X:[ 8 , 9 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 489 > X:[ 8 , 9 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 490 > X:[8, 9] Y:[4, 5]
Found Entropy: 0
\forall \text{Window: } 491 > X:[9, 10] Y:[-9, -8]
Found Entropy: 0
<Window: 492 > X:[ 9 , 10 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 493 > X:[ 9 , 10 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 494 > X:[9, 10] Y:[-6, -5]
Found Entropy: 0
```

```
<Window: 495 > X:[ 9 , 10 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 496 > X:[9, 10] Y:[-4, -3]
Found Entropy: 0
<Window: 497 > X:[9, 10] Y:[-3, -2]
Found Entropy: 0
<Window: 498 > X:[9, 10] Y:[-2, -1]
Found Entropy: 0
<Window: 499 > X:[9, 10] Y:[-1, 0]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 500 > X:[ 9 , 10 ] Y:[ 0 , 1 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 501 > X:[ 9 , 10 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 502 > X:[9, 10] Y:[2, 3]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 503 > X:[ 9 , 10 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 504 > X:[ 9 , 10 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 505 > X:[ 10 , 11 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 506 > X:[ 10 , 11 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 507 > X:[ 10 , 11 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 508 > X:[ 10 , 11 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 509 > X:[ 10 , 11 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 510 \rangle X: [10, 11] Y: [-4, -3]
Found Entropy: 0
\{Window: 511 > X:[10, 11] Y:[-3, -2]
Found Entropy: 0
\{Window: 512 > X:[10, 11] Y:[-2, -1]
Found Entropy: 0
<Window: 513 > X:[ 10 , 11 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 514 > X:[ 10 , 11 ] Y:[ 0 , 1 ]
Found a sample of class: 1
Found Entropy: 0.0
```

```
<Window: 515 > X:[ 10 , 11 ] Y:[ 1 , 2 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 516 > X:[ 10 , 11 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 517 > X:[ 10 , 11 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 518 > X:[ 10 , 11 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 519 > X:[ 11 , 12 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 520 > X:[ 11 , 12 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 521 > X:[ 11 , 12 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 522 > X:[ 11 , 12 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 523 > X:[ 11 , 12 ] Y:[ -5 , -4 ]
Found Entropy: 0
\{Window: 524 > X:[11, 12] Y:[-4, -3]
Found Entropy: 0
<Window: 525 > X:[ 11 , 12 ] Y:[ -3 , -2 ]
Found Entropy: 0
\{Window: 526 > X:[11, 12] Y:[-2, -1]
Found Entropy: 0
\{\text{Window: } 527 > X:[11, 12] Y:[-1, 0]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 528 > X:[ 11 , 12 ] Y:[ 0 , 1 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 529 > X:[ 11 , 12 ] Y:[ 1 , 2 ]
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.6931471805599453
<Window: 530 > X:[ 11 , 12 ] Y:[ 2 , 3 ]
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 531 > X:[ 11 , 12 ] Y:[ 3 , 4 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 532 > X:[ 11 , 12 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: 533} \rangle X: [12, 13] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window: } 534 \rangle \text{ X:[ } 12 \text{ , } 13 \text{ ] } \text{ Y:[ } -8 \text{ , } -7 \text{ ]}
```

```
Found Entropy: 0
<Window: 535 > X:[ 12 , 13 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 536 > X:[ 12 , 13 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 537 > X:[ 12 , 13 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window: 538} \rangle \text{ X:} [ 12 , 13 ] \text{ Y:} [ -4 , -3 ]
Found Entropy: 0
<Window: 539 > X:[ 12 , 13 ] Y:[ -3 , -2 ]
Found Entropy: 0
\forall \text{Window: } 540 > X:[12, 13] Y:[-2, -1]
Found Entropy: 0
<Window: 541 > X:[ 12 , 13 ] Y:[ -1 , 0 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 542 > X:[ 12 , 13 ] Y:[ 0 , 1 ]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 1.0986122886681096
<Window: 543 > X:[ 12 , 13 ] Y:[ 1 , 2 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 544 > X:[ 12 , 13 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 545 > X:[ 12 , 13 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 1.0397207708399179
<Window: 546 > X:[ 12 , 13 ] Y:[ 4 , 5 ]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 547 > X:[ 13 , 14 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 548 > X:[ 13 , 14 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window: 549} \rangle X: [13, 14] Y: [-7, -6]
Found Entropy: 0
<Window: 550 > X:[ 13 , 14 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 551 \rangle X:[13, 14] Y:[-5, -4]
```

```
Found Entropy: 0
<Window: 552 > X:[ 13 , 14 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 553 > X:[ 13 , 14 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 554 > X:[ 13 , 14 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 555 > X:[ 13 , 14 ] Y:[ -1 , 0 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 556 > X:[ 13 , 14 ] Y:[ 0 , 1 ]
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.6931471805599453
<Window: 557 > X:[ 13 , 14 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 558 > X:[ 13 , 14 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 559 > X:[ 13 , 14 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 560 > X:[ 13 , 14 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 561 > X:[ 14 , 15 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 562 \rangle X: [14, 15] Y: [-8, -7]
Found Entropy: 0
<Window: 563 > X:[ 14 , 15 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 564 > X:[ 14 , 15 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 565 > X:[ 14 , 15 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 566 > X:[ 14 , 15 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 567 \rangle X: [14, 15] Y: [-3, -2]
Found Entropy: 0
<Window: 568 > X:[ 14 , 15 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 569 > X:[ 14 , 15 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 570 > X:[ 14 , 15 ] Y:[ 0 , 1 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 571 > X:[ 14 , 15 ] Y:[ 1 , 2 ]
Found Entropy: 0
```

```
<Window: 572 > X:[ 14 , 15 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 573 > X:[ 14 , 15 ] Y:[ 3 , 4 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 574 > X:[ 14 , 15 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 575 > X:[ 15 , 16 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 576 > X:[ 15 , 16 ] Y:[ -8 , -7 ]
Found Entropy: 0
\forall x \in X : [15, 16] Y : [-7, -6]
Found Entropy: 0
<Window: 578 > X:[ 15 , 16 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: 579} \rangle X: [15, 16] Y: [-5, -4]
Found Entropy: 0
<Window: 580 > X:[ 15 , 16 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: 581} \rangle \text{ X:[15,16] Y:[-3,-2]}
Found Entropy: 0
\langle \text{Window: 582} \rangle X: [15, 16] Y: [-2, -1]
Found Entropy: 0
<Window: 583 > X:[ 15 , 16 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 584 > X:[ 15 , 16 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 585 > X:[ 15 , 16 ] Y:[ 1 , 2 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 586 > X:[ 15 , 16 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 587 > X:[ 15 , 16 ] Y:[ 3 , 4 ]
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 588 > X:[ 15 , 16 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 589 > X:[ 16 , 17 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 590 > X:[ 16 , 17 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 591 > X:[ 16 , 17 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 592 > X:[ 16 , 17 ] Y:[ -6 , -5 ]
Found Entropy: 0
```

```
<Window: 593 > X:[ 16 , 17 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 594 \rangle X: [16, 17] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 595 \rangle X: [16, 17] Y: [-3, -2]
Found Entropy: 0
<Window: 596 > X:[ 16 , 17 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 597 > X:[ 16 , 17 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 598 > X:[ 16 , 17 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 599 > X:[ 16 , 17 ] Y:[ 1 , 2 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 600 > X:[ 16 , 17 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 601 > X:[ 16 , 17 ] Y:[ 3 , 4 ]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 602 > X:[ 16 , 17 ] Y:[ 4 , 5 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 603 > X:[ 17 , 18 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 604 > X:[ 17 , 18 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 605 > X:[ 17 , 18 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 606 > X:[ 17 , 18 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 607 \rangle \text{ X:} [17, 18] \text{ Y:} [-5, -4]
Found Entropy: 0
\langle \text{Window: } 608 \rangle \ \text{X:} [ 17 , 18 ] \ \text{Y:} [ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 609 \rangle \ \text{X:} [ 17 , 18 ] \ \text{Y:} [ -3 , -2 ]
Found Entropy: 0
\langle \text{Window: 610} \rangle X: [17, 18] Y: [-2, -1]
Found Entropy: 0
<Window: 611 > X:[ 17 , 18 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 612 > X:[ 17 , 18 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 613 > X:[ 17 , 18 ] Y:[ 1 , 2 ]
```

```
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
\{\text{Window: 614} > \text{X:[17,18]} \ \text{Y:[2,3]}
Found a sample of class: 2
Found Entropy: 0.0
<Window: 615 > X:[ 17 , 18 ] Y:[ 3 , 4 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 616 > X:[ 17 , 18 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 617 \rangle \text{ X:} [ 18 , 19 ] \text{ Y:} [ -9 , -8 ]
Found Entropy: 0
<Window: 618 > X:[ 18 , 19 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 619 > X:[ 18 , 19 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 620 > X:[ 18 , 19 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 621 > X:[ 18 , 19 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 622 > X:[ 18 , 19 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 623 \rangle X: [ 18 , 19 ] Y: [ -3 , -2 ]
Found Entropy: 0
<Window: 624 > X:[ 18 , 19 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 625 > X:[ 18 , 19 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 626 > X:[ 18 , 19 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 627 > X:[ 18 , 19 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 628 > X:[ 18 , 19 ] Y:[ 2 , 3 ]
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 629 > X:[ 18 , 19 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.6365141682948128
<Window: 630 > X:[ 18 , 19 ] Y:[ 4 , 5 ]
Found a sample of class: 2
Found a sample of class: 2
```

```
Found Entropy: 0.0
\langle \text{Window: } 631 \rangle \text{ X:} [19, 20] \text{ Y:} [-9, -8]
Found Entropy: 0
<Window: 632 > X:[ 19 , 20 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window: } 633 \rangle \text{ X:} [19, 20] \text{ Y:} [-7, -6]
Found Entropy: 0
<Window: 634 > X:[ 19 , 20 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 635 > X:[ 19 , 20 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 636 > X:[ 19 , 20 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 637 > X:[ 19 , 20 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window: 638} \rangle \text{ X:} [ 19 , 20 ] \text{ Y:} [ -2 , -1 ]
Found Entropy: 0
<Window: 639 > X:[ 19 , 20 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 640 > X:[ 19 , 20 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 641 > X:[ 19 , 20 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 642 > X:[ 19 , 20 ] Y:[ 2 , 3 ]
Found Entropy: 0
\langle Window: 643 \rangle X: [19, 20] Y: [3, 4]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 644 > X:[ 19 , 20 ] Y:[ 4 , 5 ]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.9502705392332347
<Window: 645 > X:[ 20 , 21 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 646 > X:[ 20 , 21 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window: } 647 \rangle \text{ X:[ } 20 \text{ , } 21 \text{ ] } \text{ Y:[ } -7 \text{ , } -6 \text{ ]}
Found Entropy: 0
<Window: 648 > X:[ 20 , 21 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 649 > X:[ 20 , 21 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 650 > X:[ 20 , 21 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 651 \rangle \text{ X:} [ 20 , 21 ] \text{ Y:} [ -3 , -2 ]
```

```
Found Entropy: 0
<Window: 652 > X:[ 20 , 21 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 653 > X:[ 20 , 21 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 654 > X:[ 20 , 21 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 655 > X:[ 20 , 21 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 656 > X:[ 20 , 21 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 657 > X:[ 20 , 21 ] Y:[ 3 , 4 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 658 > X:[ 20 , 21 ] Y:[ 4 , 5 ]
Found a sample of class: 2
Found Entropy: 0.0
Total Count: 658
Expected Count: 658
OKAY: True
----Done---- 14.084730563358754
Done!
-26 21 -9 5
You Can use this matrix now.
X_{min} = -26
X_max = 21
Y_{min} = -9
Y \max = 5
And the Matrix Shape: 47 * 14
\{\text{Window: 1 > X:[-26,-25] Y:[-9,-8]}
Found Entropy: 0
\langle \text{Window: 2} \rangle \text{ X:[-26,-25] Y:[-8,-7]}
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 0.6931471805599453
\langle \text{Window}: 3 \rangle X: [-26, -25] Y: [-7, -6]
Found a sample of class: 0
Found Entropy: 0.0
\{\text{Window: 4} > \text{X:[-26,-25]} \text{Y:[-6,-5]}
Found Entropy: 0
\forall X: [-26, -25] Y: [-5, -4]
Found Entropy: 0
<Window: 6 > X:[ -26 , -25 ] Y:[ -4 , -3 ]
Found Entropy: 0
```

```
\langle \text{Window: 7 > X:[-26,-25] Y:[-3,-2]}
Found Entropy: 0
\langle \text{Window: 8 > X:[-26,-25] Y:[-2,-1]}
Found Entropy: 0
\{\text{Window: 9 > X:[-26,-25] Y:[-1,0]}
Found Entropy: 0
\langle \text{Window}: 10 \rangle X: [-26, -25] Y: [0, 1]
Found Entropy: 0
\{\text{Window: } 11 > \text{X:} [-26, -25] \text{ Y:} [1, 2]
Found Entropy: 0
\langle \text{Window}: 12 \rangle X: [-26, -25] Y: [2, 3]
Found Entropy: 0
<Window: 13 > X:[ -26 , -25 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 14 > X:[ -26 , -25 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 15 \rangle X: [-25, -24] Y: [-9, -8]
Found Entropy: 0
<Window: 16 > X:[ -25 , -24 ] Y:[ -8 , -7 ]
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 0.6931471805599453
\langle \text{Window: } 17 > \text{X:} [ -25 , -24 ] \text{ Y:} [ -7 , -6 ]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.5623351446188083
<Window: 18 > X:[ -25 , -24 ] Y:[ -6 , -5 ]
Found a sample of class: 0
Found Entropy: 0.0
\forall 19 > X:[-25, -24] Y:[-5, -4]
Found Entropy: 0
\forall X: [-25, -24] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 21 \rangle X: [-25, -24] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 22 \rangle X: [-25, -24] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 23 \rangle X: [-25, -24] Y: [-1, 0]
Found Entropy: 0
<Window: 24 > X:[ -25 , -24 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 25 > X:[ -25 , -24 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 26 > X:[ -25 , -24 ] Y:[ 2 , 3 ]
Found Entropy: 0
\langle \text{Window}: 27 \rangle X: [-25, -24] Y: [3, 4]
```

```
Found Entropy: 0
\langle \text{Window: 28} \rangle X: [-25, -24] Y: [4, 5]
Found Entropy: 0
\{Window: 29 \} X: [ -24 , -23 ] Y: [ -9 , -8 ]
Found Entropy: 0
<Window: 30 > X:[ -24 , -23 ] Y:[ -8 , -7 ]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 31 \rangle X: [-24, -23] Y: [-7, -6]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.5623351446188083
\langle \text{Window}: 32 \rangle X: [-24, -23] Y: [-6, -5]
Found a sample of class: 0
Found Entropy: 0.0
\forall Window: 33 > X:[ -24 , -23 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 34 \rangle X: [-24, -23] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 35 \rangle X: [-24, -23] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 36 \rangle X: [-24, -23] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 37 > X: [-24, -23] Y: [-1, 0]
Found Entropy: 0
\langle \text{Window: } 38 \rangle \ \text{X:[} -24 , -23 \ ] \ \text{Y:[} 0 , 1 \ ]
Found Entropy: 0
\langle \text{Window: } 39 \rangle \text{ X:[} -24 , -23 ] \text{ Y:[} 1 , 2 ]
Found Entropy: 0
<Window: 40 > X:[ -24 , -23 ] Y:[ 2 , 3 ]
Found Entropy: 0
\langle \text{Window}: 41 > X: [-24, -23] Y: [3, 4]
Found Entropy: 0
\{\text{Window: } 42 > X: [-24, -23] Y: [4, 5]
Found Entropy: 0
\{Window: 43 > X:[ -23 , -22 ] Y:[ -9 , -8 ]
Found Entropy: 0
\forall X: [-23, -22] Y: [-8, -7]
Found a sample of class: 0
Found Entropy: 0.0
\{\text{Window}: 45 > X: [-23, -22] Y: [-7, -6]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
```

```
Found Entropy: 0.6931471805599453
\{\text{Window: } 46 > \text{X:} [-23, -22] \text{ Y:} [-6, -5] \}
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window: } 47 \rangle \text{ X: [ } -23 \text{ , } -22 \text{ ] } \text{ Y: [ } -5 \text{ , } -4 \text{ ]}
Found Entropy: 0
\langle \text{Window: } 48 \rangle \ \text{X:[} -23 \ , -22 \ ] \ \text{Y:[} -4 \ , -3 \ ]
Found Entropy: 0
\langle \text{Window}: 49 \rangle X: [-23, -22] Y: [-3, -2]
Found Entropy: 0
\{Window: 50 > X: [ -23 , -22 ] Y: [ -2 , -1 ]
Found Entropy: 0
<Window: 51 > X:[ -23 , -22 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 52 > X:[ -23 , -22 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 53 > X:[ -23 , -22 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window}: 54 \rangle X: [-23, -22] Y: [2, 3]
Found Entropy: 0
\langle \text{Window: } 55 \rangle \text{ X:[} -23 , -22 ] \text{ Y:[} 3 , 4 ]
Found Entropy: 0
\{\text{Window: } 56 > \text{X:} [-23, -22] \text{ Y:} [4, 5]
Found Entropy: 0
\{\text{Window: } 57 > \text{X:} [-22, -21] \text{ Y:} [-9, -8]
Found Entropy: 0
\langle \text{Window}: 58 \rangle X: [-22, -21] Y: [-8, -7]
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 0.6931471805599453
\langle \text{Window}: 59 \rangle X: [-22, -21] Y: [-7, -6]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window: } 60 \rangle \text{ X: } [-22, -21] \text{ Y: } [-6, -5]
Found Entropy: 0
\langle \text{Window: } 61 \rangle \ \text{X:} [ -22 , -21 ] \ \text{Y:} [ -5 , -4 ]
Found Entropy: 0
\langle \text{Window: } 62 \rangle \text{ X: [ } -22 \text{ , } -21 \text{ ] } \text{ Y: [ } -4 \text{ , } -3 \text{ ]}
Found Entropy: 0
\langle \text{Window}: 63 \rangle X: [-22, -21] Y: [-3, -2]
Found Entropy: 0
\{\text{Window: } 64 > \text{X:} [-22, -21] \text{ Y:} [-2, -1] \}
Found Entropy: 0
<Window: 65 > X:[ -22 , -21 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 66 > X:[-22, -21] Y:[0, 1]
```

```
Found Entropy: 0
\forall \text{Window: } 67 > X:[-22, -21] Y:[1, 2]
Found Entropy: 0
<Window: 68 > X:[ -22 , -21 ] Y:[ 2 , 3 ]
Found Entropy: 0
\{Window: 69 > X:[-22, -21] Y:[3, 4]
Found Entropy: 0
\langle \text{Window: 70} \rangle \text{ X:[-22, -21] Y:[4,5]}
Found Entropy: 0
\langle \text{Window}: 71 > X:[-21, -20] Y:[-9, -8]
Found a sample of class: 0
Found Entropy: 0.0
\{\text{Window: 72} > \text{X:} [-21, -20] \text{ Y:} [-8, -7] \}
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 0.6365141682948128
\langle \text{Window}: 73 \rangle X: [-21, -20] Y: [-7, -6]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 0.6365141682948128
\{Window: 74 > X:[ -21 , -20 ] Y:[ -6 , -5 ]
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 0.6931471805599453
\forall X: [-21, -20] \ Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 76 \rangle X: [-21, -20] Y: [-4, -3]
Found Entropy: 0
\{Window: 77 > X:[ -21 , -20 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window: 78} \rangle \text{ X: [-21, -20] Y: [-2, -1]}
Found Entropy: 0
\langle \text{Window: 79} \rangle \ \text{X:[-21,-20]} \ \text{Y:[-1,0]}
Found Entropy: 0
\langle \text{Window: } 80 \rangle X: [-21, -20] Y: [0, 1]
Found Entropy: 0
<Window: 81 > X:[ -21 , -20 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 82 > X:[ -21 , -20 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 83 > X:[ -21 , -20 ] Y:[ 3 , 4 ]
Found Entropy: 0
\{\text{Window: 84} > \text{X:[-21,-20]} \text{ Y:[4,5]}
```

```
Found Entropy: 0
<Window: 85 > X:[ -20 , -19 ] Y:[ -9 , -8 ]
Found Entropy: 0
\{Window: 86 \} X: [ -20 , -19 ] Y: [ -8 , -7 ]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 87 \rangle X: [-20, -19] Y: [-7, -6]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 1.0397207708399179
<Window: 88 > X:[ -20 , -19 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: 89} \rangle \text{ X: [ -20 , -19 ] Y: [ -5 , -4 ]}
Found Entropy: 0
\langle \text{Window: } 90 \rangle \text{ X: [ } -20 \text{ , } -19 \text{ ] } \text{ Y: [ } -4 \text{ , } -3 \text{ ]}
Found Entropy: 0
\forall  window: 91 > X:[ -20 , -19 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window}: 92 \rangle X: [-20, -19] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window: } 93 \rangle \ \text{X:[} -20 \ , -19 \ ] \ \text{Y:[} -1 \ , 0 \ ]
Found Entropy: 0
\langle \text{Window: } 94 \rangle \text{ X: [ } -20 \text{ , } -19 \text{ ] } \text{ Y: [ } 0 \text{ , } 1 \text{ ]}
Found Entropy: 0
\langle \text{Window: 95} \rangle X: [-20, -19] Y: [1, 2]
Found Entropy: 0
<Window: 96 > X:[ -20 , -19 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 97 > X:[ -20 , -19 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 98 > X:[ -20 , -19 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 99 > X:[ -19 , -18 ] Y:[ -9 , -8 ]
Found Entropy: 0
\{Window: 100 > X:[-19, -18] Y:[-8, -7]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 101 > X:[ -19 , -18 ] Y:[ -7 , -6 ]
Found Entropy: 0
\langle \text{Window}: 102 \rangle X: [-19, -18] Y: [-6, -5]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 103 \rangle X: [-19, -18] Y: [-5, -4]
Found Entropy: 0
\forall \text{Window: } 104 > X:[-19, -18] Y:[-4, -3]
Found Entropy: 0
```

```
\langle \text{Window: } 105 \rangle \text{ X:[} -19 , -18 ] \text{ Y:[} -3 , -2 ]
Found Entropy: 0
\langle \text{Window}: 106 \rangle X: [-19, -18] Y: [-2, -1]
Found Entropy: 0
<Window: 107 > X:[ -19 , -18 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 108 > X:[ -19 , -18 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 109 > X:[ -19 , -18 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window}: 110 \rangle X: [-19, -18] Y: [2, 3]
Found Entropy: 0
<Window: 111 > X:[ -19 , -18 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window: } 112 \rangle \ \text{X:[} -19 \ , -18 \ ] \ \text{Y:[} 4 \ , 5 \ ]
Found Entropy: 0
\langle \text{Window: } 113 \rangle \text{ X:[} -18 , -17 ] \text{ Y:[} -9 , -8 ]
Found Entropy: 0
<Window: 114 > X:[ -18 , -17 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window}: 115 \rangle X: [-18, -17] Y: [-7, -6]
Found Entropy: 0
<Window: 116 > X:[ -18 , -17 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 117 \rangle \ \text{X:[} -18 \ , -17 \ ] \ \text{Y:[} -5 \ , -4 \ ]
Found Entropy: 0
\forall Window: 118 > X:[ -18 , -17 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 119 \rangle \ \text{X:[} -18 \ , -17 \ ] \ \text{Y:[} -3 \ , -2 \ ]
Found Entropy: 0
\langle \text{Window: } 120 \rangle \text{ X:[} -18 , -17 ] \text{ Y:[} -2 , -1 ]
Found Entropy: 0
<Window: 121 > X:[ -18 , -17 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 122 > X:[ -18 , -17 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 123 > X:[ -18 , -17 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 124 > X:[ -18 , -17 ] Y:[ 2 , 3 ]
Found Entropy: 0
\langle \text{Window: } 125 \rangle \text{ X:[} -18 , -17 ] \text{ Y:[} 3 , 4 ]
Found Entropy: 0
\langle \text{Window}: 126 \rangle X: [-18, -17] Y: [4, 5]
Found Entropy: 0
\forall x = 127 > x = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 
Found Entropy: 0
<Window: 128 > X:[ -17 , -16 ] Y:[ -8 , -7 ]
Found Entropy: 0
```

```
\forall \text{Window: } 129 > X:[-17, -16] Y:[-7, -6]
Found Entropy: 0
\langle \text{Window: } 130 \rangle \text{ X:[} -17 , -16 ] \text{ Y:[} -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 131 \rangle X: [-17, -16] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 132 \rangle X: [-17, -16] Y: [-4, -3]
Found Entropy: 0
\{Window: 133 > X: [ -17 , -16 ] Y: [ -3 , -2 ] 
Found Entropy: 0
\langle \text{Window}: 134 \rangle X: [-17, -16] Y: [-2, -1]
Found Entropy: 0
<Window: 135 > X:[ -17 , -16 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 136 > X:[ -17 , -16 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window: } 137 \rangle X:[-17, -16] Y:[1, 2]
Found Entropy: 0
<Window: 138 > X:[ -17 , -16 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 139 > X:[ -17 , -16 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window: } 140 \rangle \ \text{X:[} -17 \ , -16 \ ] \ \text{Y:[} 4 \ , 5 \ ]
Found Entropy: 0
<Window: 141 > X:[ -16 , -15 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 142 \rangle X: [-16, -15] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window: } 143 \rangle \ \text{X:[} -16 \ , -15 \ ] \ \text{Y:[} -7 \ , -6 \ ]
Found Entropy: 0
\langle \text{Window}: 144 \rangle X: [-16, -15] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window: } 145 \rangle \text{ X:[} -16 , -15 ] \text{ Y:[} -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 146 \rangle X: [-16, -15] Y: [-4, -3]
Found Entropy: 0
\{Window: 147 > X: [ -16 , -15 ] Y: [ -3 , -2 ] 
Found Entropy: 0
<Window: 148 > X:[ -16 , -15 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 149 > X:[ -16 , -15 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 150 > X:[ -16 , -15 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 151 > X:[ -16 , -15 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 152 > X:[ -16 , -15 ] Y:[ 2 , 3 ]
Found Entropy: 0
```

```
\langle \text{Window}: 153 \rangle X: [-16, -15] Y: [3, 4]
Found Entropy: 0
<Window: 154 > X:[ -16 , -15 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle Window: 155 \rangle X: [ -15 , -14 ] Y: [ -9 , -8 ]
Found Entropy: 0
<Window: 156 > X:[ -15 , -14 ] Y:[ -8 , -7 ]
Found Entropy: 0
\{Window: 157 > X:[-15, -14] Y:[-7, -6]
Found Entropy: 0
\langle \text{Window}: 158 \rangle X: [-15, -14] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window: } 159 \rangle \text{ X:} [ -15 , -14 ] \text{ Y:} [ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 160 \rangle X: [-15, -14] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 161 \rangle X: [-15, -14] Y: [-3, -2]
Found Entropy: 0
<Window: 162 > X:[ -15 , -14 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 163 > X:[ -15 , -14 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 164 > X:[ -15 , -14 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 165 > X:[ -15 , -14 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 166 > X:[ -15 , -14 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 167 > X:[ -15 , -14 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 168 > X:[ -15 , -14 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 169 \rangle \ \text{X:[} -14 \ , -13 \ ] \ \text{Y:[} -9 \ , -8 \ ]
Found Entropy: 0
\langle \text{Window}: 170 \rangle X: [-14, -13] Y: [-8, -7]
Found Entropy: 0
\{Window: 171 > X:[-14, -13] Y:[-7, -6]
Found Entropy: 0
<Window: 172 > X:[ -14 , -13 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 173 > X:[ -14 , -13 ] Y:[ -5 , -4 ]
Found Entropy: 0
\forall \text{Window: } 174 > X:[-14, -13] Y:[-4, -3]
Found Entropy: 0
\langle \text{Window}: 175 \rangle X: [-14, -13] Y: [-3, -2]
Found Entropy: 0
\forall 176 > X: [-14, -13] Y: [-2, -1]
Found Entropy: 0
```

```
<Window: 177 > X:[ -14 , -13 ] Y:[ -1 , 0 ]
Found Entropy: 0
\forall 178 > X:[-14, -13] Y:[0, 1]
Found Entropy: 0
\langle Window: 179 \rangle X:[-14, -13] Y:[1, 2]
Found Entropy: 0
\langle \text{Window}: 180 \rangle X: [-14, -13] Y: [2, 3]
Found Entropy: 0
<Window: 181 > X:[ -14 , -13 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window}: 182 \rangle X: [-14, -13] Y: [4, 5]
Found Entropy: 0
\forall \text{Window: } 183 > X:[-13, -12] Y:[-9, -8]
Found Entropy: 0
\langle \text{Window: } 184 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} -8 \ , -7 \ ]
Found Entropy: 0
\langle \text{Window: } 185 \rangle \text{ X:[} -13 , -12 ] \text{ Y:[} -7 , -6 ]
Found Entropy: 0
\forall X: [-13, -12] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 187 \rangle X: [-13, -12] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window: } 188 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} -4 \ , -3 \ ]
Found Entropy: 0
\langle \text{Window: } 189 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} -3 \ , -2 \ ]
Found Entropy: 0
\forall \text{Window: } 190 > X:[-13, -12] Y:[-2, -1]
Found Entropy: 0
<Window: 191 > X:[ -13 , -12 ] Y:[ -1 , 0 ]
Found Entropy: 0
\langle \text{Window: } 192 \rangle X:[-13, -12] Y:[0, 1]
Found Entropy: 0
\langle \text{Window: 193} \rangle X: [-13, -12] Y: [1, 2]
Found Entropy: 0
\langle \text{Window}: 194 \rangle X: [-13, -12] Y: [2, 3]
Found Entropy: 0
<Window: 195 > X:[ -13 , -12 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 196 > X:[ -13 , -12 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 197 > X:[ -12 , -11 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 198 > X:[ -12 , -11 ] Y:[ -8 , -7 ]
Found Entropy: 0
\forall 199 > X:[-12,-11] Y:[-7,-6]
Found Entropy: 0
\forall X: [-12, -11] Y: [-6, -5]
Found Entropy: 0
```

```
\forall X:[-12, -11] Y:[-5, -4]
Found Entropy: 0
\langle \text{Window}: 202 \rangle X: [-12, -11] Y: [-4, -3]
Found Entropy: 0
\{Window: 203 > X:[-12, -11] Y:[-3, -2]
Found Entropy: 0
\langle \text{Window}: 204 \rangle X: [-12, -11] Y: [-2, -1]
Found Entropy: 0
<Window: 205 > X:[-12, -11] Y:[-1, 0]
Found Entropy: 0
\langle \text{Window}: 206 \rangle X: [-12, -11] Y: [0, 1]
Found Entropy: 0
<Window: 207 > X:[ -12 , -11 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window: } 208 \rangle \ \text{X:[} -12 \ , -11 \ ] \ \text{Y:[} 2 \ , 3 \ ]
Found Entropy: 0
\langle \text{Window: } 209 \rangle \ X:[ -12 , -11 ] \ Y:[ 3 , 4 ]
Found Entropy: 0
\forall X:[-12, -11] Y:[4, 5]
Found Entropy: 0
\{Window: 211 > X:[-11, -10] Y:[-9, -8]
Found Entropy: 0
<Window: 212 > X:[ -11 , -10 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window}: 213 \rangle X: [-11, -10] Y: [-7, -6]
Found Entropy: 0
\forall x = 10  \exists x = 10 
Found Entropy: 0
\langle \text{Window}: 215 \rangle X: [-11, -10] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 216 \rangle X: [-11, -10] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 217 \rangle X: [-11, -10] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 218 \rangle X: [-11, -10] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 219 \rangle X: [-11, -10] Y: [-1, 0]
Found Entropy: 0
<Window: 220 > X:[ -11 , -10 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 221 > X:[ -11 , -10 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window: } 222 \rangle X:[-11, -10] Y:[2, 3]
Found Entropy: 0
<Window: 223 > X:[ -11 , -10 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window}: 224 \rangle X: [-11, -10] Y: [4, 5]
Found Entropy: 0
```

```
\langle \text{Window: } 225 \rangle \text{ X:[} -10 , -9 ] \text{ Y:[} -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 226 \rangle X:[-10, -9] Y:[-8, -7]
Found Entropy: 0
\langle \text{Window}: 227 \rangle X: [-10, -9] Y: [-7, -6]
Found Entropy: 0
<Window: 228 > X:[ -10 , -9 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 229 \rangle X: [-10, -9] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 230 \rangle X: [-10, -9] Y: [-4, -3]
Found Entropy: 0
<Window: 231 > X:[ -10 , -9 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window: } 232 \rangle \text{ X:[} -10 , -9 ] \text{ Y:[} -2 , -1 ]
Found Entropy: 0
\langle \text{Window: } 233 \rangle X: [-10, -9] Y: [-1, 0]
Found Entropy: 0
\langle \text{Window: } 234 \rangle \text{ X:[} -10 , -9 ] \text{ Y:[} 0 , 1 ]
Found Entropy: 0
<Window: 235 > X:[ -10 , -9 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 236 > X:[ -10 , -9 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 237 > X:[ -10 , -9 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 238 > X:[ -10 , -9 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 239 > X:[ -9 , -8 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window: } 240 \rangle \text{ X:[} -9 , -8 ] \text{ Y:[} -8 , -7 ]
Found Entropy: 0
\langle \text{Window: } 241 \rangle \ \text{X:[} -9 \ , -8 \ ] \ \text{Y:[} -7 \ , -6 \ ]
Found Entropy: 0
<Window: 242 > X:[ -9 , -8 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 243 \rangle X: [-9, -8] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 244 \rangle X: [-9, -8] Y: [-4, -3]
Found Entropy: 0
<Window: 245 > X:[-9, -8] Y:[-3, -2]
Found Entropy: 0
\langle \text{Window}: 246 \rangle X: [-9, -8] Y: [-2, -1]
Found Entropy: 0
<Window: 247 > X:[ -9 , -8 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 248 > X:[ -9 , -8 ] Y:[ 0 , 1 ]
Found Entropy: 0
```

```
\langle \text{Window}: 249 \rangle X:[-9, -8] Y:[1, 2]
Found Entropy: 0
\langle \text{Window}: 250 \rangle X: [-9, -8] Y: [2, 3]
Found Entropy: 0
<Window: 251 > X:[ -9 , -8 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 252 > X:[ -9 , -8 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 253 \rangle X: [-8, -7] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 254 \rangle X: [-8, -7] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 255 \rangle X: [-8, -7] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 256 \rangle X: [-8, -7] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 257 \rangle X: [-8, -7] Y: [-5, -4]
Found Entropy: 0
\forall Window: 258 > X:[ -8 , -7 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 259 \rangle X: [-8, -7] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 260 \rangle X: [-8, -7] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window: 261} \rangle X: [-8, -7] Y: [-1, 0]
Found Entropy: 0
<Window: 262 > X:[ -8 , -7 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 263 > X:[ -8 , -7 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 264 > X:[ -8 , -7 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 265 > X:[ -8 , -7 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 266 > X:[ -8 , -7 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 267 \rangle X: [-7, -6] Y: [-9, -8]
Found Entropy: 0
\{Window: 268 > X: [-7, -6] Y: [-8, -7] 
Found Entropy: 0
<Window: 269 > X:[ -7 , -6 ] Y:[ -7 , -6 ]
Found Entropy: 0
\langle \text{Window}: 270 \rangle X:[-7,-6] Y:[-6,-5]
Found Entropy: 0
\forall X:[-7,-6] Y:[-5,-4]
Found Entropy: 0
\forall X: [-7, -6] \ Y: [-4, -3]
Found Entropy: 0
```

```
\langle \text{Window}: 273 \rangle X: [-7, -6] Y: [-3, -2]
Found Entropy: 0
\forall x = 1 
Found Entropy: 0
\langle \text{Window}: 275 \rangle X: [-7, -6] Y: [-1, 0]
Found Entropy: 0
\langle \text{Window}: 276 \rangle X: [-7, -6] Y: [0, 1]
Found Entropy: 0
\{\text{Window: } 277 > \text{X:} [-7, -6] \text{ Y:} [1, 2]
Found Entropy: 0
\langle \text{Window}: 278 \rangle X:[-7,-6] Y:[2,3]
Found Entropy: 0
<Window: 279 > X:[ -7 , -6 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 280 > X:[ -7 , -6 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 281 \rangle \text{ X:} [ -6 , -5 ] \text{ Y:} [ -9 , -8 ]
Found Entropy: 0
\forall X: [-6, -5] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 283 \rangle X: [-6, -5] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window: } 284 \rangle \ \text{X:[} -6 , -5 \ ] \ \text{Y:[} -6 , -5 \ ]
Found Entropy: 0
\langle \text{Window: } 285 \rangle \ \text{X:[} -6 \ , -5 \ ] \ \text{Y:[} -5 \ , -4 \ ]
Found Entropy: 0
\langle \text{Window: } 286 \rangle \ \text{X:[} -6 , -5 \ ] \ \text{Y:[} -4 , -3 \ ]
Found Entropy: 0
\langle \text{Window}: 287 \rangle X: [-6, -5] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window: 288} \rangle X: [-6, -5] Y: [-2, -1]
Found Entropy: 0
<Window: 289 > X:[-6, -5] Y:[-1, 0]
Found Entropy: 0
\langle \text{Window}: 290 \rangle X: [-6, -5] Y: [0, 1]
Found Entropy: 0
<Window: 291 > X:[ -6 , -5 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 292 > X:[ -6 , -5 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 293 > X:[ -6 , -5 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 294 > X:[ -6 , -5 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 295 \rangle X:[-5, -4] Y:[-9, -8]
Found Entropy: 0
<Window: 296 > X:[ -5 , -4 ] Y:[ -8 , -7 ]
Found Entropy: 0
```

```
\langle \text{Window: } 297 \rangle \text{ X:} [ -5 , -4 ] \text{ Y:} [ -7 , -6 ]
Found Entropy: 0
\langle \text{Window: } 298 \rangle \ \text{X:[} -5 , -4 \ ] \ \text{Y:[} -6 , -5 \ ]
Found Entropy: 0
\langle \text{Window}: 299 \rangle X: [-5, -4] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 300 \rangle X: [-5, -4] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 301 \rangle X: [-5, -4] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 302 \rangle X: [-5, -4] Y: [-2, -1]
Found Entropy: 0
<Window: 303 > X:[ -5 , -4 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 304 > X:[ -5 , -4 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 305 > X:[ -5 , -4 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 306 > X:[-5, -4] Y:[2, 3]
Found Entropy: 0
<Window: 307 > X:[ -5 , -4 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 308 > X:[ -5 , -4 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 309 \rangle \ \text{X:[} -4 , -3 \ ] \ \text{Y:[} -9 , -8 \ ]
Found Entropy: 0
\langle \text{Window}: 310 \rangle X: [-4, -3] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 311 > X: [ -4 , -3 ] Y: [ -7 , -6 ]
Found Entropy: 0
\langle \text{Window}: 312 \rangle X: [-4, -3] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 313 \rangle X: [-4, -3] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 314 \rangle X: [-4, -3] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 315 \rangle X: [-4, -3] Y: [-3, -2]
Found Entropy: 0
\{Window: 316 > X: [ -4 , -3 ] Y: [ -2 , -1 ] 
Found Entropy: 0
<Window: 317 > X:[ -4 , -3 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 318 > X:[ -4 , -3 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 319 > X:[ -4 , -3 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 320 > X:[ -4 , -3 ] Y:[ 2 , 3 ]
Found Entropy: 0
```

```
\langle \text{Window}: 321 \rangle X: [-4, -3] Y: [3, 4]
Found Entropy: 0
\langle \text{Window}: 322 \rangle X: [-4, -3] Y: [4, 5]
Found Entropy: 0
\langle \text{Window}: 323 \rangle X: [-3, -2] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 324 \rangle X: [-3, -2] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 325 \rangle X: [-3, -2] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 326 \rangle X: [-3, -2] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 327 \rangle X: [-3, -2] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 328 \rangle X: [-3, -2] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 329 \rangle X: [-3, -2] Y: [-3, -2]
Found Entropy: 0
\forall X: [-3, -2] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 331 \rangle X: [-3, -2] Y: [-1, 0]
Found Entropy: 0
<Window: 332 > X:[ -3 , -2 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 333 \rangle X: [-3, -2] Y: [1, 2]
Found Entropy: 0
<Window: 334 > X:[ -3 , -2 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 335 > X:[ -3 , -2 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 336 > X:[ -3 , -2 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 337 \rangle \text{ X:[} -2 , -1 ] \text{ Y:[} -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 338 \rangle X: [-2, -1] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 339 \rangle X: [-2, -1] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 340 \rangle X: [-2, -1] Y: [-6, -5]
Found Entropy: 0
<Window: 341 > X:[ -2 , -1 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 342 \rangle X: [-2, -1] Y: [-4, -3]
Found Entropy: 0
\forall X: [-2, -1] \ Y: [-3, -2]
Found Entropy: 0
<Window: 344 > X:[ -2 , -1 ] Y:[ -2 , -1 ]
Found Entropy: 0
```

```
<Window: 345 > X:[-2, -1] Y:[-1, 0]
Found Entropy: 0
<Window: 346 > X:[ -2 , -1 ] Y:[ 0 , 1 ]
Found Entropy: 0
\{\text{Window: } 347 > \text{X:} [-2, -1] \text{ Y:} [1, 2]
Found Entropy: 0
\langle \text{Window}: 348 \rangle X: [-2, -1] Y: [2, 3]
Found Entropy: 0
\langle \text{Window}: 349 \rangle X: [-2, -1] Y: [3, 4]
Found Entropy: 0
<Window: 350 > X:[ -2 , -1 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 351 > X:[ -1 , 0 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 352 > X:[-1, 0] Y:[-8, -7]
Found Entropy: 0
<Window: 353 > X:[ -1 , 0 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 354 > X:[ -1 , 0 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 355 \rangle X: [-1, 0] Y: [-5, -4]
Found Entropy: 0
<Window: 356 > X:[ -1 , 0 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 357 \rangle \text{ X:} [-1, 0] \text{ Y:} [-3, -2]
Found Entropy: 0
\langle \text{Window}: 358 \rangle X: [-1, 0] Y: [-2, -1]
Found Entropy: 0
<Window: 359 > X:[ -1 , 0 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 360 > X:[ -1 , 0 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 361 > X:[ -1 , 0 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window}: 362 \rangle X:[-1, 0] Y:[2, 3]
Found Entropy: 0
<Window: 363 > X:[ -1 , 0 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 364 > X:[ -1 , 0 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 365 > X:[0, 1] Y:[-9, -8]
Found Entropy: 0
<Window: 366 > X:[ 0 , 1 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 367 > X:[ 0 , 1 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 368 > X:[ 0 , 1 ] Y:[ -6 , -5 ]
Found Entropy: 0
```

```
<Window: 369 > X:[ 0 , 1 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 370 > X:[ 0 , 1 ] Y:[ -4 , -3 ]
Found Entropy: 0
\{\text{Window: } 371 > X:[0,1] Y:[-3,-2]
Found Entropy: 0
\langle \text{Window}: 372 \rangle X: [0, 1] Y: [-2, -1]
Found Entropy: 0
<Window: 373 > X:[0, 1] Y:[-1, 0]
Found Entropy: 0
<Window: 374 > X:[0,1] Y:[0,1]
Found Entropy: 0
<Window: 375 > X:[ 0 , 1 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 376 > X:[ 0 , 1 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 377 > X:[ 0 , 1 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 378 > X:[0, 1] Y:[4, 5]
Found Entropy: 0
<Window: 379 > X:[1,2] Y:[-9,-8]
Found Entropy: 0
<Window: 380 > X:[1,2] Y:[-8,-7]
Found Entropy: 0
<Window: 381 > X:[1,2] Y:[-7,-6]
Found Entropy: 0
\langle \text{Window}: 382 \rangle X: [1, 2] Y: [-6, -5]
Found Entropy: 0
<Window: 383 > X:[1,2] Y:[-5,-4]
Found Entropy: 0
<Window: 384 > X:[1,2] Y:[-4,-3]
Found Entropy: 0
\langle \text{Window}: 385 \rangle X: [1, 2] Y: [-3, -2]
Found Entropy: 0
<Window: 386 > X:[ 1 , 2 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 387 > X:[1,2] Y:[-1,0]
Found Entropy: 0
<Window: 388 > X:[ 1 , 2 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 389 > X:[1,2] Y:[1,2]
Found Entropy: 0
<Window: 390 > X:[1,2] Y:[2,3]
Found Entropy: 0
<Window: 391 > X:[ 1 , 2 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 392 > X:[ 1 , 2 ] Y:[ 4 , 5 ]
Found Entropy: 0
```

```
\langle \text{Window}: 393 \rangle X: [2, 3] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 394 \rangle X: [2, 3] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 395 \rangle X: [2, 3] Y: [-7, -6]
Found Entropy: 0
<Window: 396 > X:[ 2 , 3 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 397 \rangle X: [2, 3] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 398 \rangle X: [2, 3] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 399 \rangle X: [2, 3] Y: [-3, -2]
Found Entropy: 0
\{\text{Window: } 400 > X: [2, 3] Y: [-2, -1]
Found Entropy: 0
<Window: 401 > X:[ 2 , 3 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 402 > X:[2,3] Y:[0,1]
Found Entropy: 0
<Window: 403 > X:[ 2 , 3 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 404 > X:[2,3] Y:[2,3]
Found Entropy: 0
<Window: 405 > X:[ 2 , 3 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 406 > X:[ 2 , 3 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 407 > X:[3,4] Y:[-9,-8]
Found Entropy: 0
<Window: 408 > X:[3,4] Y:[-8,-7]
Found Entropy: 0
<Window: 409 > X:[3,4] Y:[-7,-6]
Found Entropy: 0
<Window: 410 > X:[3, 4] Y:[-6, -5]
Found Entropy: 0
\langle \text{Window}: 411 \rangle X: [3, 4] Y: [-5, -4]
Found Entropy: 0
\{\text{Window: } 412 > X:[3,4] Y:[-4,-3]
Found Entropy: 0
<Window: 413 > X:[ 3 , 4 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window}: 414 \rangle X: [3, 4] Y: [-2, -1]
Found Entropy: 0
<Window: 415 > X:[ 3 , 4 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 416 > X:[ 3 , 4 ] Y:[ 0 , 1 ]
Found Entropy: 0
```

```
<Window: 417 > X:[3, 4] Y:[1, 2]
Found Entropy: 0
<Window: 418 > X:[3, 4] Y:[2, 3]
Found Entropy: 0
<Window: 419 > X:[ 3 , 4 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 420 > X:[ 3 , 4 ] Y:[ 4 , 5 ]
Found Entropy: 0
\{\text{Window: } 421 > X: [4, 5] Y: [-9, -8]
Found Entropy: 0
\{\text{Window}: 422 > X: [4, 5] Y: [-8, -7] \}
Found Entropy: 0
\{\text{Window: } 423 > X: [4, 5] Y: [-7, -6]
Found Entropy: 0
<Window: 424 > X:[ 4 , 5 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 425 > X:[ 4 , 5 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 426 > X:[4,5] Y:[-4,-3]
Found Entropy: 0
<Window: 427 > X:[ 4 , 5 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window}: 428 \rangle X: [4, 5] Y: [-2, -1]
Found Entropy: 0
<Window: 429 > X:[ 4 , 5 ] Y:[ -1 , 0 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 430 > X:[4,5] Y:[0,1]
Found Entropy: 0
<Window: 431 > X:[4,5] Y:[1,2]
Found Entropy: 0
<Window: 432 > X:[ 4 , 5 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 433 > X:[4,5] Y:[3,4]
Found Entropy: 0
<Window: 434 > X:[ 4 , 5 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 435 > X:[5,6] Y:[-9,-8]
Found Entropy: 0
<Window: 436 > X:[5,6] Y:[-8,-7]
Found Entropy: 0
<Window: 437 > X:[ 5 , 6 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 438 > X:[ 5 , 6 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 439 > X:[5,6] Y:[-5,-4]
Found Entropy: 0
<Window: 440 > X:[5,6] Y:[-4,-3]
```

```
Found Entropy: 0
<Window: 441 > X:[5, 6] Y:[-3, -2]
Found Entropy: 0
<Window: 442 > X:[5, 6] Y:[-2, -1]
Found Entropy: 0
<Window: 443 > X:[5,6] Y:[-1,0]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.6365141682948128
<Window: 444 > X:[5,6] Y:[0,1]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 445 > X:[ 5 , 6 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 446 > X:[5,6] Y:[2,3]
Found Entropy: 0
<Window: 447 > X:[5,6] Y:[3,4]
Found Entropy: 0
<Window: 448 > X:[ 5 , 6 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 449 > X:[ 6 , 7 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 450 > X:[6,7] Y:[-8,-7]
Found Entropy: 0
<Window: 451 > X:[ 6 , 7 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 452 > X:[ 6 , 7 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 453 > X:[ 6 , 7 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 454 > X:[6,7] Y:[-4,-3]
Found Entropy: 0
\langle \text{Window}: 455 \rangle X: [6, 7] Y: [-3, -2]
Found Entropy: 0
\{\text{Window: } 456 > X: [6, 7] Y: [-2, -1]
Found Entropy: 0
<Window: 457 > X:[6,7] Y:[-1,0]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 1.0986122886681096
<Window: 458 > X:[ 6 , 7 ] Y:[ 0 , 1 ]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.6365141682948128
```

```
<Window: 459 > X:[6,7] Y:[1,2]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 460 > X:[6, 7] Y:[2, 3]
Found Entropy: 0
<Window: 461 > X:[ 6 , 7 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 462 > X:[ 6 , 7 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 463 > X:[ 7 , 8 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 464 > X:[ 7 , 8 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 465 > X:[7,8] Y:[-7,-6]
Found Entropy: 0
<Window: 466 > X:[ 7 , 8 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 467 > X:[ 7 , 8 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 468 > X:[7,8] Y:[-4,-3]
Found Entropy: 0
<Window: 469 > X:[ 7 , 8 ] Y:[ -3 , -2 ]
Found Entropy: 0
\{\text{Window: } 470 > \text{X:} [7, 8] \text{ Y:} [-2, -1]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 471 > X:[ 7 , 8 ] Y:[ -1 , 0 ]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 472 > X:[7,8] Y:[0,1]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 473 > X:[ 7 , 8 ] Y:[ 1 , 2 ]
Found Entropy: 0
\{\text{Window: } 474 > X:[7,8] Y:[2,3]
Found Entropy: 0
<Window: 475 > X:[7,8] Y:[3,4]
Found Entropy: 0
<Window: 476 > X:[ 7 , 8 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 477 > X:[8,9] Y:[-9,-8]
Found Entropy: 0
<Window: 478 > X:[8, 9] Y:[-8, -7]
Found Entropy: 0
```

```
<Window: 479 > X:[8,9] Y:[-7,-6]
Found Entropy: 0
<Window: 480 > X:[8,9] Y:[-6,-5]
Found Entropy: 0
<Window: 481 > X:[8, 9] Y:[-5, -4]
Found Entropy: 0
\{\text{Window: } 482 > X:[8,9] Y:[-4,-3]
Found Entropy: 0
\{\text{Window: } 483 > X: [8, 9] Y: [-3, -2]
Found Entropy: 0
\langle Window: 484 \rangle X: [8, 9] Y: [-2, -1]
Found Entropy: 0
<Window: 485 > X:[8, 9] Y:[-1, 0]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.6365141682948128
<Window: 486 > X:[8, 9] Y:[0, 1]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 487 > X:[ 8 , 9 ] Y:[ 1 , 2 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 488 > X:[ 8 , 9 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 489 > X:[8, 9] Y:[3, 4]
Found Entropy: 0
<Window: 490 > X:[8, 9] Y:[4, 5]
Found Entropy: 0
<Window: 491 > X:[ 9 , 10 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 492 > X:[ 9 , 10 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 493 > X:[ 9 , 10 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 494 > X:[9, 10] Y:[-6, -5]
Found Entropy: 0
<Window: 495 > X:[9, 10] Y:[-5, -4]
Found Entropy: 0
<Window: 496 > X:[ 9 , 10 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 497 > X:[9, 10] Y:[-3, -2]
Found Entropy: 0
<Window: 498 > X:[ 9 , 10 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 499 > X:[ 9 , 10 ] Y:[ -1 , 0 ]
Found a sample of class: 1
```

```
Found Entropy: 0.0
<Window: 500 > X:[ 9 , 10 ] Y:[ 0 , 1 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 501 > X:[ 9 , 10 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 502 > X:[ 9 , 10 ] Y:[ 2 , 3 ]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 503 > X:[ 9 , 10 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 504 > X:[ 9 , 10 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 505 > X:[ 10 , 11 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 506 > X:[ 10 , 11 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 507 > X:[ 10 , 11 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 508 > X:[ 10 , 11 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 509 > X:[ 10 , 11 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window: 510} \rangle \text{ X:[ 10 , 11 ] Y:[ -4 , -3 ]}
Found Entropy: 0
\forall X:[10, 11] Y:[-3, -2]
Found Entropy: 0
<Window: 512 > X:[ 10 , 11 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 513 > X:[ 10 , 11 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 514 > X:[ 10 , 11 ] Y:[ 0 , 1 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 515 > X:[ 10 , 11 ] Y:[ 1 , 2 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 516 > X:[ 10 , 11 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 517 > X:[ 10 , 11 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 518 > X:[ 10 , 11 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 519 > X:[ 11 , 12 ] Y:[ -9 , -8 ]
```

```
Found Entropy: 0
<Window: 520 > X:[ 11 , 12 ] Y:[ -8 , -7 ]
Found Entropy: 0
\{Window: 521 > X:[11, 12] Y:[-7, -6]
Found Entropy: 0
\forall X: [11, 12] Y: [-6, -5]
Found Entropy: 0
<Window: 523 > X:[ 11 , 12 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 524 > X:[ 11 , 12 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: 525} \rangle X: [11, 12] Y: [-3, -2]
Found Entropy: 0
<Window: 526 > X:[ 11 , 12 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 527 > X:[ 11 , 12 ] Y:[ -1 , 0 ]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 528 > X:[ 11 , 12 ] Y:[ 0 , 1 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 529 > X:[ 11 , 12 ] Y:[ 1 , 2 ]
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.6931471805599453
<Window: 530 > X:[ 11 , 12 ] Y:[ 2 , 3 ]
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 531 > X:[ 11 , 12 ] Y:[ 3 , 4 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 532 > X:[ 11 , 12 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 533 > X:[ 12 , 13 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window: } 534 \rangle \text{ X:} [ 12 , 13 ] \text{ Y:} [ -8 , -7 ]
Found Entropy: 0
\langle \text{Window: 535} \rangle \text{ X:} [ 12 , 13 ] \text{ Y:} [ -7 , -6 ]
Found Entropy: 0
<Window: 536 > X:[ 12 , 13 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 537 \rangle \text{ X:[ } 12 \text{ , } 13 \text{ ] } \text{ Y:[ } -5 \text{ , } -4 \text{ ]}
Found Entropy: 0
\langle \text{Window: 538} \rangle \text{ X:[ 12 , 13 ] Y:[ -4 , -3 ]}
Found Entropy: 0
\langle \text{Window: 539} \rangle X: [12, 13] Y: [-3, -2]
```

```
Found Entropy: 0
<Window: 540 > X:[ 12 , 13 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 541 > X:[12, 13] Y:[-1, 0]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 542 > X:[ 12 , 13 ] Y:[ 0 , 1 ]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 1.0986122886681096
<Window: 543 > X:[ 12 , 13 ] Y:[ 1 , 2 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 544 > X:[ 12 , 13 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 545 > X:[ 12 , 13 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 1.0397207708399179
<Window: 546 > X:[ 12 , 13 ] Y:[ 4 , 5 ]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.6365141682948128
\langle \text{Window: 547} \rangle \text{ X:[ 13 , 14 ] Y:[ -9 , -8 ]}
Found Entropy: 0
<Window: 548 > X:[13, 14] Y:[-8, -7]
Found Entropy: 0
<Window: 549 > X:[ 13 , 14 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 550 > X:[ 13 , 14 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 551 > X:[ 13 , 14 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 552 > X:[ 13 , 14 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 553 \rangle X: [13, 14] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 554 \rangle X: [13, 14] Y: [-2, -1]
Found Entropy: 0
<Window: 555 > X:[ 13 , 14 ] Y:[ -1 , 0 ]
Found a sample of class: 0
Found Entropy: 0.0
```

```
<Window: 556 > X:[ 13 , 14 ] Y:[ 0 , 1 ]
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.6931471805599453
<Window: 557 > X:[ 13 , 14 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 558 > X:[ 13 , 14 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 559 > X:[ 13 , 14 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 560 > X:[ 13 , 14 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 561 > X:[ 14 , 15 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 562 \rangle X: [14, 15] Y: [-8, -7]
Found Entropy: 0
<Window: 563 > X:[ 14 , 15 ] Y:[ -7 , -6 ]
Found Entropy: 0
\langle \text{Window}: 564 \rangle X: [14, 15] Y: [-6, -5]
Found Entropy: 0
<Window: 565 > X:[ 14 , 15 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 566 > X:[ 14 , 15 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 567 \rangle X: [14, 15] Y: [-3, -2]
Found Entropy: 0
<Window: 568 > X:[ 14 , 15 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 569 > X:[ 14 , 15 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 570 > X:[ 14 , 15 ] Y:[ 0 , 1 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 571 > X:[ 14 , 15 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 572 > X:[ 14 , 15 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 573 > X:[ 14 , 15 ] Y:[ 3 , 4 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 574 > X:[ 14 , 15 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 575 \rangle X: [15, 16] Y: [-9, -8]
Found Entropy: 0
<Window: 576 > X:[ 15 , 16 ] Y:[ -8 , -7 ]
```

```
Found Entropy: 0
<Window: 577 > X:[ 15 , 16 ] Y:[ -7 , -6 ]
Found Entropy: 0
\langle \text{Window}: 578 \rangle X: [15, 16] Y: [-6, -5]
Found Entropy: 0
<Window: 579 > X:[ 15 , 16 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window: 580} \rangle \text{ X:} [15, 16] \text{ Y:} [-4, -3]
Found Entropy: 0
<Window: 581 > X:[ 15 , 16 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window: 582} \rangle X: [15, 16] Y: [-2, -1]
Found Entropy: 0
<Window: 583 > X:[ 15 , 16 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 584 > X:[ 15 , 16 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 585 > X:[ 15 , 16 ] Y:[ 1 , 2 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 586 > X:[ 15 , 16 ] Y:[ 2 , 3 ]
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 587 > X:[ 15 , 16 ] Y:[ 3 , 4 ]
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 588 > X:[ 15 , 16 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 589 > X:[ 16 , 17 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 590 > X:[ 16 , 17 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 591 > X:[ 16 , 17 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 592 > X:[ 16 , 17 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 593 > X:[ 16 , 17 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 594 > X:[ 16 , 17 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: 595} \rangle X: [16, 17] Y: [-3, -2]
Found Entropy: 0
<Window: 596 > X:[ 16 , 17 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 597 > X:[ 16 , 17 ] Y:[ -1 , 0 ]
Found Entropy: 0
```

```
<Window: 598 > X:[ 16 , 17 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 599 > X:[ 16 , 17 ] Y:[ 1 , 2 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 600 > X:[ 16 , 17 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 601 > X:[ 16 , 17 ] Y:[ 3 , 4 ]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 602 > X:[ 16 , 17 ] Y:[ 4 , 5 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 603 > X:[ 17 , 18 ] Y:[ -9 , -8 ]
Found Entropy: 0
\{\text{Window: }604 > X:[17,18] Y:[-8,-7]
Found Entropy: 0
\langle \text{Window: } 605 \rangle \text{ X:} [17, 18] \text{ Y:} [-7, -6]
Found Entropy: 0
<Window: 606 > X:[ 17 , 18 ] Y:[ -6 , -5 ]
Found Entropy: 0
\{Window: 607 > X:[ 17 , 18 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 608 > X:[ 17 , 18 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 609 > X:[ 17 , 18 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window: 610} \rangle X: [17, 18] Y: [-2, -1]
Found Entropy: 0
<Window: 611 > X:[ 17 , 18 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 612 > X:[ 17 , 18 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 613 > X:[ 17 , 18 ] Y:[ 1 , 2 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 614 > X:[ 17 , 18 ] Y:[ 2 , 3 ]
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.5623351446188083
<Window: 615 > X:[ 17 , 18 ] Y:[ 3 , 4 ]
```

```
Found a sample of class: 0
Found Entropy: 0.0
<Window: 616 > X:[ 17 , 18 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 617 \rangle \text{ X:} [ 18 , 19 ] \text{ Y:} [ -9 , -8 ]
Found Entropy: 0
<Window: 618 > X:[ 18 , 19 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window: 619} \rangle X: [18, 19] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window: } 620 \rangle \text{ X:} [ 18 , 19 ] \text{ Y:} [ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 621 \rangle X: [18, 19] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window: } 622 \rangle \text{ X:} [ 18 , 19 ] \text{ Y:} [ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 623 \rangle \text{ X:} [ 18 , 19 ] \text{ Y:} [ -3 , -2 ]
Found Entropy: 0
<Window: 624 > X:[ 18 , 19 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 625 > X:[ 18 , 19 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 626 > X:[ 18 , 19 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 627 > X:[ 18 , 19 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 628 > X:[ 18 , 19 ] Y:[ 2 , 3 ]
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 629 > X:[ 18 , 19 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.6365141682948128
<Window: 630 > X:[ 18 , 19 ] Y:[ 4 , 5 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
\langle \text{Window: } 631 \rangle \text{ X:} [19, 20] \text{ Y:} [-9, -8]
Found Entropy: 0
<Window: 632 > X:[ 19 , 20 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 633 > X:[ 19 , 20 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 634 > X:[ 19 , 20 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 635 \rangle \text{ X:} [ 19 , 20 ] \text{ Y:} [ -5 , -4 ]
```

```
Found Entropy: 0
<Window: 636 > X:[ 19 , 20 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 637 > X:[ 19 , 20 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 638 > X:[ 19 , 20 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 639 > X:[ 19 , 20 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 640 > X:[ 19 , 20 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 641 > X:[ 19 , 20 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 642 > X:[ 19 , 20 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 643 > X:[ 19 , 20 ] Y:[ 3 , 4 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 644 > X:[ 19 , 20 ] Y:[ 4 , 5 ]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.6730116670092565
\{\text{Window: } 645 > X: [20, 21] Y: [-9, -8]
Found Entropy: 0
<Window: 646 > X:[ 20 , 21 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 647 > X:[ 20 , 21 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 648 > X:[ 20 , 21 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 649 > X:[ 20 , 21 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window: } 650 \rangle \text{ X:} [20, 21] \text{ Y:} [-4, -3]
Found Entropy: 0
\langle \text{Window: } 651 \rangle \ \text{X:} [ 20 , 21 ] \ \text{Y:} [ -3 , -2 ]
Found Entropy: 0
\langle \text{Window: } 652 \rangle \text{ X:} [ 20 , 21 ] \text{ Y:} [ -2 , -1 ]
Found Entropy: 0
<Window: 653 > X:[ 20 , 21 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 654 > X:[ 20 , 21 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 655 > X:[ 20 , 21 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 656 > X:[ 20 , 21 ] Y:[ 2 , 3 ]
```

```
Found Entropy: 0
<Window: 657 > X:[ 20 , 21 ] Y:[ 3 , 4 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 658 > X:[ 20 , 21 ] Y:[ 4 , 5 ]
Found a sample of class: 2
Found Entropy: 0.0
Total Count: 658
Expected Count: 658
OKAY: True
----Done--- 18.71690138410482
Done!
-26 21 -9 5
You Can use this matrix now.
X_{min} = -26
X_max= 21
Y_{min} = -9
Y_max= 5
And the Matrix Shape: 47 * 14
\langle \text{Window}: 1 > X: [-26, -25] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window: 2} \rangle \text{ X:[-26,-25] Y:[-8,-7]}
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.6931471805599453
\langle \text{Window: 3} \rangle \text{ X:[-26,-25] Y:[-7,-6]}
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.6931471805599453
\{\text{Window: 4} > \text{X:[-26,-25]} \text{Y:[-6,-5]}
Found Entropy: 0
\langle \text{Window}: 5 \rangle X: [-26, -25] Y: [-5, -4]
Found Entropy: 0
\{Window: 6 > X:[ -26 , -25 ] Y:[ -4 , -3 ]
Found Entropy: 0
\{Window: 7 > X:[ -26 , -25 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 8 > X:[ -26 , -25 ] Y:[ -2 , -1 ]
Found Entropy: 0
\langle \text{Window: 9 > X:[-26,-25] Y:[-1,0]}
Found Entropy: 0
\forall 10 > X:[-26, -25] Y:[0, 1]
Found Entropy: 0
\forall X: [-26, -25] Y: [1, 2]
Found Entropy: 0
```

```
\{\text{Window: } 12 > X:[-26, -25] Y:[2, 3]
Found Entropy: 0
<Window: 13 > X:[ -26 , -25 ] Y:[ 3 , 4 ]
Found Entropy: 0
\{\text{Window: } 14 > X: [-26, -25] \ Y: [4, 5] \}
Found Entropy: 0
\langle \text{Window}: 15 \rangle X: [-25, -24] Y: [-9, -8]
Found Entropy: 0
<Window: 16 > X:[ -25 , -24 ] Y:[ -8 , -7 ]
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 0.6931471805599453
\langle \text{Window}: 17 > X:[-25, -24] Y:[-7, -6]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 1.0397207708399179
\{Window: 18 > X: [ -25 , -24 ] Y: [ -6 , -5 ]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window: } 19 \rangle \ \text{X:} [ -25 , -24 ] \ \text{Y:} [ -5 , -4 ]
Found Entropy: 0
\{Window: 20 > X:[ -25 , -24 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 21 \rangle X: [-25, -24] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 22 \rangle X: [-25, -24] Y: [-2, -1]
Found Entropy: 0
<Window: 23 > X:[ -25 , -24 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 24 > X:[ -25 , -24 ] Y:[ 0 , 1 ]
Found Entropy: 0
\{\text{Window: } 25 > \text{X:} [-25, -24] \text{ Y:} [1, 2]
Found Entropy: 0
<Window: 26 > X:[ -25 , -24 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 27 > X:[ -25 , -24 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window: 28} \rangle \text{ X:[-25,-24] Y:[4,5]}
Found Entropy: 0
\langle \text{Window}: 29 \rangle X: [-24, -23] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 30 \rangle X: [-24, -23] Y: [-8, -7]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 31 \rangle X: [-24, -23] Y: [-7, -6]
```

```
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.6931471805599453
\langle \text{Window}: 32 \rangle X: [-24, -23] Y: [-6, -5]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 33 \rangle X: [-24, -23] Y: [-5, -4]
Found Entropy: 0
\{Window: 34 > X: [-24, -23] Y: [-4, -3] <math>\}
Found Entropy: 0
\langle \text{Window}: 35 \rangle X: [-24, -23] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 36 \rangle X: [-24, -23] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 37 > X: [-24, -23] Y: [-1, 0]
Found Entropy: 0
<Window: 38 > X:[ -24 , -23 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 39 \rangle X: [-24, -23] Y: [1, 2]
Found Entropy: 0
<Window: 40 > X:[ -24 , -23 ] Y:[ 2 , 3 ]
Found Entropy: 0
\langle \text{Window}: 41 \rangle X: [-24, -23] Y: [3, 4]
Found Entropy: 0
\{\text{Window: } 42 > X: [-24, -23] Y: [4, 5]
Found Entropy: 0
\langle \text{Window}: 43 \rangle X: [-23, -22] Y: [-9, -8]
Found Entropy: 0
\{\text{Window: } 44 > \text{X:} [-23, -22] \text{ Y:} [-8, -7] \}
Found a sample of class: 0
Found Entropy: 0.0
\{\text{Window: } 45 > \text{X:} [-23, -22] \text{ Y:} [-7, -6] \}
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.6931471805599453
<Window: 46 > X:[ -23 , -22 ] Y:[ -6 , -5 ]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\forall 1 = 1  \forall 1 = 1  \forall 2 = 1  \forall 3 = 1  \forall 4 = 1 
Found Entropy: 0
\langle \text{Window: } 48 \rangle \ \text{X:[} -23 \ , -22 \ ] \ \text{Y:[} -4 \ , -3 \ ]
Found Entropy: 0
\langle \text{Window}: 49 \rangle X: [-23, -22] Y: [-3, -2]
```

```
Found Entropy: 0
\forall X: [-23, -22] Y: [-2, -1]
Found Entropy: 0
<Window: 51 > X:[ -23 , -22 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 52 > X:[-23, -22] Y:[0, 1]
Found Entropy: 0
\langle \text{Window: 53} \rangle X: [-23, -22] Y: [1, 2]
Found Entropy: 0
\langle \text{Window}: 54 \rangle X: [-23, -22] Y: [2, 3]
Found Entropy: 0
<Window: 55 > X:[ -23 , -22 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 56 > X:[ -23 , -22 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 57 \rangle X: [-22, -21] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 58 \rangle X: [-22, -21] Y: [-8, -7]
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 0.6931471805599453
\langle \text{Window: 59} \rangle \text{ X: [ -22 , -21 ] Y: [ -7 , -6 ]}
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\{\text{Window: } 60 > \text{X:} [-22, -21] \text{ Y:} [-6, -5] \}
Found Entropy: 0
\langle \text{Window}: 61 \rangle X: [-22, -21] Y: [-5, -4]
Found Entropy: 0
\forall \text{Window: } 62 > X:[-22, -21] Y:[-4, -3]
Found Entropy: 0
\langle \text{Window: } 63 \rangle \text{ X: [ } -22 \text{ , } -21 \text{ ] } \text{ Y: [ } -3 \text{ , } -2 \text{ ]}
Found Entropy: 0
\{\text{Window: } 64 > X: [-22, -21] \ Y: [-2, -1] \}
Found Entropy: 0
\langle \text{Window: } 65 \rangle \ \text{X:[} -22 \ , -21 \ ] \ \text{Y:[} -1 \ , 0 \ ]
Found Entropy: 0
<Window: 66 > X:[ -22 , -21 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window: } 67 \rangle X:[-22, -21] Y:[1, 2]
Found Entropy: 0
<Window: 68 > X:[ -22 , -21 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 69 > X:[ -22 , -21 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window: 70} \rangle X: [-22, -21] Y: [4, 5]
Found Entropy: 0
\{Window: 71 > X:[ -21 , -20 ] Y:[ -9 , -8 ]
```

```
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 72 \rangle X: [-21, -20] Y: [-8, -7]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 1.0986122886681096
\langle \text{Window: 73} \rangle \text{ X: [ -21 , -20 ] Y: [ -7 , -6 ]}
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 0.8675632284814612
\{\text{Window: } 74 > \text{X:} [-21, -20] \text{ Y:} [-6, -5] \}
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 0.6931471805599453
\{Window: 75 > X: [ -21 , -20 ] Y: [ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 76 \rangle X: [-21, -20] Y: [-4, -3]
Found Entropy: 0
\{Window: 77 > X:[ -21 , -20 ] Y:[ -3 , -2 ]
Found Entropy: 0
\{Window: 78 > X:[ -21 , -20 ] Y:[ -2 , -1 ]
Found Entropy: 0
\{Window: 79 > X:[ -21 , -20 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 80 > X:[ -21 , -20 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 81 > X:[ -21 , -20 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 82 > X:[ -21 , -20 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 83 > X:[ -21 , -20 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 84 > X:[ -21 , -20 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 85 \rangle \text{ X: } [-20, -19] \text{ Y: } [-9, -8]
Found Entropy: 0
\{\text{Window: 86} > \text{X:} [-20, -19] \text{ Y:} [-8, -7] \}
Found a sample of class: 0
Found Entropy: 0.0
\forall X: [-20, -19] \ Y: [-7, -6]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 0
```

```
Found a sample of class: 0
Found Entropy: 1.0397207708399179
\langle \text{Window: 88} \rangle \text{ X: [ -20 , -19 ] Y: [ -6 , -5 ]}
Found Entropy: 0
\langle \text{Window: 89} \rangle \text{ X: [ -20 , -19 ] Y: [ -5 , -4 ]}
Found Entropy: 0
\langle \text{Window: } 90 \rangle \text{ X: } [-20, -19] \text{ Y: } [-4, -3]
Found Entropy: 0
\{Window: 91 > X:[ -20 , -19 ] Y:[ -3 , -2 ]
Found Entropy: 0
\{\text{Window: } 92 > \text{X:} [-20, -19] \text{ Y:} [-2, -1] \}
Found Entropy: 0
<Window: 93 > X:[ -20 , -19 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 94 > X:[ -20 , -19 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window: 95} \rangle X: [-20, -19] Y: [1, 2]
Found Entropy: 0
\forall 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.
Found Entropy: 0
\langle \text{Window: } 97 \rangle X:[-20, -19] Y:[3, 4]
Found Entropy: 0
\langle \text{Window: 98} \rangle \text{ X:[-20,-19] Y:[4,5]}
Found Entropy: 0
\langle \text{Window: } 99 \rangle \ \text{X:} [ -19 , -18 ] \ \text{Y:} [ -9 , -8 ]
Found Entropy: 0
\langle \text{Window: } 100 \rangle \text{ X:[} -19 , -18 ] \text{ Y:[} -8 , -7 ]
Found a sample of class: 2
Found Entropy: 0.0
\langle Window: 101 \rangle X:[-19, -18] Y:[-7, -6]
Found Entropy: 0
\langle \text{Window: } 102 \rangle \text{ X:[} -19 , -18 ] \text{ Y:[} -6 , -5 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 103 > X:[ -19 , -18 ] Y:[ -5 , -4 ]
Found Entropy: 0
\{Window: 104 > X:[-19, -18] Y:[-4, -3]
Found Entropy: 0
<Window: 105 > X:[ -19 , -18 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 106 > X:[ -19 , -18 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 107 > X:[ -19 , -18 ] Y:[ -1 , 0 ]
Found Entropy: 0
\langle \text{Window: } 108 \rangle \ \text{X:[} -19 \ , -18 \ ] \ \text{Y:[} 0 \ , 1 \ ]
Found Entropy: 0
\forall 109 > X:[-19, -18] Y:[1, 2]
Found Entropy: 0
```

```
\langle \text{Window: } 110 \rangle \ \text{X:[} -19 \ , -18 \ ] \ \text{Y:[} 2 \ , 3 \ ]
Found Entropy: 0
\langle \text{Window: } 111 \rangle \ \text{X:[} -19 \ , -18 \ ] \ \text{Y:[} 3 \ , 4 \ ]
Found Entropy: 0
<Window: 112 > X:[ -19 , -18 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 113 > X:[ -18 , -17 ] Y:[ -9 , -8 ]
Found Entropy: 0
\{Window: 114 > X:[-18, -17] Y:[-8, -7]
Found Entropy: 0
\langle \text{Window}: 115 \rangle X: [-18, -17] Y: [-7, -6]
Found Entropy: 0
<Window: 116 > X:[ -18 , -17 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 117 \rangle X: [-18, -17] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 118 \rangle X: [-18, -17] Y: [-4, -3]
Found Entropy: 0
<Window: 119 > X:[ -18 , -17 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 120 > X:[ -18 , -17 ] Y:[ -2 , -1 ]
Found Entropy: 0
\langle \text{Window: } 121 \rangle \ \text{X:[} -18 \ , -17 \ ] \ \text{Y:[} -1 \ , 0 \ ]
Found Entropy: 0
\langle \text{Window: } 122 \rangle \ \text{X:[} -18 \ , -17 \ ] \ \text{Y:[} 0 \ , 1 \ ]
Found Entropy: 0
<Window: 123 > X:[ -18 , -17 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 124 > X:[ -18 , -17 ] Y:[ 2 , 3 ]
Found Entropy: 0
\langle \text{Window: } 125 \rangle X:[-18, -17] Y:[3, 4]
Found Entropy: 0
\langle \text{Window}: 126 \rangle X: [-18, -17] Y: [4, 5]
Found Entropy: 0
\langle \text{Window}: 127 \rangle X: [-17, -16] Y: [-9, -8]
Found Entropy: 0
<Window: 128 > X:[ -17 , -16 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 129 > X:[ -17 , -16 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 130 > X:[ -17 , -16 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 131 \rangle \ \text{X:[} -17 \ , -16 \ ] \ \text{Y:[} -5 \ , -4 \ ]
Found Entropy: 0
\langle \text{Window}: 132 \rangle X: [-17, -16] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 133 \rangle X: [-17, -16] Y: [-3, -2]
Found Entropy: 0
```

```
\forall \text{Window: } 134 > X:[-17, -16] Y:[-2, -1]
Found Entropy: 0
<Window: 135 > X:[ -17 , -16 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 136 > X:[ -17 , -16 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 137 > X:[ -17 , -16 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 138 > X:[ -17 , -16 ] Y:[ 2 , 3 ]
Found Entropy: 0
\langle \text{Window}: 139 \rangle X: [-17, -16] Y: [3, 4]
Found Entropy: 0
<Window: 140 > X:[ -17 , -16 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 141 \rangle \ \text{X:[} -16 \ , -15 \ ] \ \text{Y:[} -9 \ , -8 \ ]
Found Entropy: 0
\langle \text{Window}: 142 \rangle X: [-16, -15] Y: [-8, -7]
Found Entropy: 0
<Window: 143 > X:[ -16 , -15 ] Y:[ -7 , -6 ]
Found Entropy: 0
\{Window: 144 > X: [ -16 , -15 ] Y: [ -6 , -5 ] <math>\}
Found Entropy: 0
\langle \text{Window: } 145 \rangle \ \text{X:[} -16 \ , -15 \ ] \ \text{Y:[} -5 \ , -4 \ ]
Found Entropy: 0
<Window: 146 > X:[ -16 , -15 ] Y:[ -4 , -3 ]
Found Entropy: 0
\forall Window: 147 > X:[ -16 , -15 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 148 > X:[ -16 , -15 ] Y:[ -2 , -1 ]
Found Entropy: 0
\langle \text{Window: } 149 \rangle \ \text{X:[} -16 \ , -15 \ ] \ \text{Y:[} -1 \ , 0 \ ]
Found Entropy: 0
<Window: 150 > X:[ -16 , -15 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 151 > X:[ -16 , -15 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 152 > X:[ -16 , -15 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 153 > X:[ -16 , -15 ] Y:[ 3 , 4 ]
Found Entropy: 0
\forall X: [-16, -15] Y: [4, 5]
Found Entropy: 0
\langle \text{Window}: 155 \rangle X: [-15, -14] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 156 \rangle X: [-15, -14] Y: [-8, -7]
Found Entropy: 0
<Window: 157 > X:[ -15 , -14 ] Y:[ -7 , -6 ]
Found Entropy: 0
```

```
\langle \text{Window}: 158 \rangle X: [-15, -14] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 159 \rangle X: [-15, -14] Y: [-5, -4]
Found Entropy: 0
\{Window: 160 > X:[-15, -14] Y:[-4, -3]
Found Entropy: 0
\langle \text{Window}: 161 \rangle X: [-15, -14] Y: [-3, -2]
Found Entropy: 0
\{Window: 162 > X:[-15, -14] Y:[-2, -1]
Found Entropy: 0
<Window: 163 > X:[ -15 , -14 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 164 > X:[ -15 , -14 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 165 > X:[ -15 , -14 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 166 > X:[ -15 , -14 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 167 > X:[ -15 , -14 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 168 > X:[ -15 , -14 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 169 \rangle \ \text{X:[} -14 \ , -13 \ ] \ \text{Y:[} -9 \ , -8 \ ]
Found Entropy: 0
\langle \text{Window: } 170 \rangle \text{ X:[} -14 , -13 ] \text{ Y:[} -8 , -7 ]
Found Entropy: 0
\forall \text{Window: } 171 > X:[-14, -13] Y:[-7, -6]
Found Entropy: 0
\forall \text{Window: } 172 > X:[-14, -13] Y:[-6, -5]
Found Entropy: 0
\langle \text{Window}: 173 \rangle X: [-14, -13] Y: [-5, -4]
Found Entropy: 0
\forall Window: 174 > X:[ -14 , -13 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 175 \rangle X: [-14, -13] Y: [-3, -2]
Found Entropy: 0
\{Window: 176 > X: [ -14 , -13 ] Y: [ -2 , -1 ] 
Found Entropy: 0
\langle \text{Window}: 177 > X:[-14, -13] Y:[-1, 0]
Found Entropy: 0
<Window: 178 > X:[ -14 , -13 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window: } 179 \rangle X:[-14, -13] Y:[1, 2]
Found Entropy: 0
\forall 180 > X:[-14, -13] Y:[2, 3]
Found Entropy: 0
<Window: 181 > X:[ -14 , -13 ] Y:[ 3 , 4 ]
Found Entropy: 0
```

```
\langle \text{Window: } 182 \rangle X: [ -14 , -13 ] Y: [ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 183 \rangle \ \text{X:[} -13 , -12 \ ] \ \text{Y:[} -9 , -8 \ ]
Found Entropy: 0
\{Window: 184 > X:[-13, -12] Y:[-8, -7]
Found Entropy: 0
<Window: 185 > X:[ -13 , -12 ] Y:[ -7 , -6 ]
Found Entropy: 0
\{Window: 186 > X:[-13, -12] Y:[-6, -5]
Found Entropy: 0
\langle \text{Window}: 187 \rangle X: [-13, -12] Y: [-5, -4]
Found Entropy: 0
\forall Window: 188 > X:[ -13 , -12 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 189 \rangle \ \text{X:[} -13 , -12 \ ] \ \text{Y:[} -3 , -2 \ ]
Found Entropy: 0
\forall \text{Window: } 190 > X:[-13, -12] Y:[-2, -1]
Found Entropy: 0
<Window: 191 > X:[ -13 , -12 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 192 > X:[ -13 , -12 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window: 193} \rangle X: [-13, -12] Y: [1, 2]
Found Entropy: 0
\langle \text{Window}: 194 \rangle X: [-13, -12] Y: [2, 3]
Found Entropy: 0
\langle \text{Window: } 195 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} 3 \ , 4 \ ]
Found Entropy: 0
<Window: 196 > X:[ -13 , -12 ] Y:[ 4 , 5 ]
Found Entropy: 0
\forall \text{Window: } 197 > X:[-12, -11] Y:[-9, -8]
Found Entropy: 0
\forall \text{Window: } 198 > X:[-12, -11] Y:[-8, -7]
Found Entropy: 0
\langle \text{Window}: 199 \rangle X: [-12, -11] Y: [-7, -6]
Found Entropy: 0
\{Window: 200 \} X: [ -12 , -11 ] Y: [ -6 , -5 ]
Found Entropy: 0
<Window: 201 > X:[ -12 , -11 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 202 > X:[ -12 , -11 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 203 > X:[ -12 , -11 ] Y:[ -3 , -2 ]
Found Entropy: 0
\forall \text{Window: } 204 > X:[-12, -11] Y:[-2, -1]
Found Entropy: 0
<Window: 205 > X:[ -12 , -11 ] Y:[ -1 , 0 ]
Found Entropy: 0
```

```
\langle \text{Window}: 206 \rangle X: [-12, -11] Y: [0, 1]
Found Entropy: 0
\langle \text{Window: } 207 \rangle X:[-12, -11] Y:[1, 2]
Found Entropy: 0
\{Window: 208 > X:[-12, -11] Y:[2, 3]
Found Entropy: 0
<Window: 209 > X:[ -12 , -11 ] Y:[ 3 , 4 ]
Found Entropy: 0
\{Window: 210 > X:[-12, -11] Y:[4, 5]
Found Entropy: 0
\{Window: 211 > X:[-11, -10] Y:[-9, -8]
Found Entropy: 0
<Window: 212 > X:[ -11 , -10 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window}: 213 \rangle X: [-11, -10] Y: [-7, -6]
Found Entropy: 0
\forall x = 10  \exists x = 10 
Found Entropy: 0
<Window: 215 > X:[ -11 , -10 ] Y:[ -5 , -4 ]
Found Entropy: 0
\{Window: 216 > X:[-11, -10] Y:[-4, -3]
Found Entropy: 0
\langle \text{Window}: 217 \rangle X: [-11, -10] Y: [-3, -2]
Found Entropy: 0
<Window: 218 > X:[ -11 , -10 ] Y:[ -2 , -1 ]
Found Entropy: 0
\langle \text{Window: } 219 \rangle X:[-11, -10] Y:[-1, 0]
Found Entropy: 0
\langle \text{Window: } 220 \rangle X:[-11, -10] Y:[0, 1]
Found Entropy: 0
\langle \text{Window: } 221 \rangle X:[-11, -10] Y:[1, 2]
Found Entropy: 0
\langle \text{Window: } 222 \rangle X:[-11, -10] Y:[2, 3]
Found Entropy: 0
<Window: 223 > X:[ -11 , -10 ] Y:[ 3 , 4 ]
Found Entropy: 0
\{Window: 224 > X:[-11, -10] Y:[4, 5]
Found Entropy: 0
<Window: 225 > X:[ -10 , -9 ] Y:[ -9 , -8 ]
Found Entropy: 0
\forall X: [-10, -9] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window: } 227 \rangle \text{ X:[} -10 , -9 ] \text{ Y:[} -7 , -6 ]
Found Entropy: 0
\langle \text{Window}: 228 \rangle X: [-10, -9] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 229 \rangle X:[-10, -9] Y:[-5, -4]
Found Entropy: 0
```

```
\langle \text{Window}: 230 \rangle X: [-10, -9] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 231 \rangle X: [-10, -9] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 232 \rangle X: [-10, -9] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 233 \rangle X: [-10, -9] Y: [-1, 0]
Found Entropy: 0
<Window: 234 > X:[ -10 , -9 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 235 \rangle X: [-10, -9] Y: [1, 2]
Found Entropy: 0
<Window: 236 > X:[ -10 , -9 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 237 > X:[ -10 , -9 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 238 > X:[ -10 , -9 ] Y:[ 4 , 5 ]
Found Entropy: 0
\forall X: [-9, -8] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window: } 240 \rangle \text{ X:} [ -9 , -8 ] \text{ Y:} [ -8 , -7 ]
Found Entropy: 0
\langle \text{Window: } 241 \rangle \ \text{X:[} -9 \ , -8 \ ] \ \text{Y:[} -7 \ , -6 \ ]
Found Entropy: 0
\langle \text{Window: } 242 \rangle \ \text{X:[} -9 \ , -8 \ ] \ \text{Y:[} -6 \ , -5 \ ]
Found Entropy: 0
\langle \text{Window}: 243 \rangle X: [-9, -8] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 244 \rangle X: [-9, -8] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 245 \rangle X: [-9, -8] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 246 \rangle X: [-9, -8] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 247 \rangle X:[-9, -8] Y:[-1, 0]
Found Entropy: 0
<Window: 248 > X:[ -9 , -8 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 249 > X:[ -9 , -8 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 250 > X:[ -9 , -8 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 251 > X:[ -9 , -8 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 252 > X:[ -9 , -8 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 253 > X:[ -8 , -7 ] Y:[ -9 , -8 ]
Found Entropy: 0
```

```
\langle \text{Window}: 254 \rangle X: [-8, -7] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 255 \rangle X: [-8, -7] Y: [-7, -6]
Found Entropy: 0
<Window: 256 > X:[ -8 , -7 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 257 \rangle X: [-8, -7] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 258 \rangle X: [-8, -7] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 259 \rangle X: [-8, -7] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 260 \rangle X: [-8, -7] Y: [-2, -1]
Found Entropy: 0
<Window: 261 > X:[-8, -7] Y:[-1, 0]
Found Entropy: 0
<Window: 262 > X:[ -8 , -7 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 263 > X:[ -8 , -7 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window}: 264 \rangle X: [-8, -7] Y: [2, 3]
Found Entropy: 0
<Window: 265 > X:[ -8 , -7 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 266 > X:[ -8 , -7 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 267 \rangle \text{ X:[} -7 , -6 ] \text{ Y:[} -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 268 \rangle X: [-7, -6] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 269 \rangle X: [-7, -6] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 270 \rangle X:[-7, -6] Y:[-6, -5]
Found Entropy: 0
\langle \text{Window}: 271 \rangle X: [-7, -6] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 272 \rangle X: [-7, -6] Y: [-4, -3]
Found Entropy: 0
\{Window: 273 > X: [-7, -6] Y: [-3, -2] \}
Found Entropy: 0
<Window: 274 > X:[-7, -6] Y:[-2, -1]
Found Entropy: 0
<Window: 275 > X:[-7, -6] Y:[-1, 0]
Found Entropy: 0
<Window: 276 > X:[ -7 , -6 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 277 > X:[ -7 , -6 ] Y:[ 1 , 2 ]
Found Entropy: 0
```

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\langle \text{Window}: 278 \rangle X:[-7,-6] Y:[2,3]
Found Entropy: 0
<Window: 279 > X:[ -7 , -6 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window}: 280 \rangle X: [-7, -6] Y: [4, 5]
Found Entropy: 0
\langle \text{Window}: 281 \rangle X: [-6, -5] Y: [-9, -8]
Found Entropy: 0
\{Window: 282 \} X: [ -6 , -5 ] Y: [ -8 , -7 ]
Found Entropy: 0
\langle \text{Window: 283} \rangle X: [-6, -5] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window: } 284 \rangle \text{ X:} [ -6 , -5 ] \text{ Y:} [ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 285 \rangle X: [-6, -5] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 286 \rangle X: [-6, -5] Y: [-4, -3]
Found Entropy: 0
\forall X: [-6, -5] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 288 \rangle X: [-6, -5] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window: 289} \rangle X: [-6, -5] Y: [-1, 0]
Found Entropy: 0
<Window: 290 > X:[ -6 , -5 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 291 \rangle X: [-6, -5] Y: [1, 2]
Found Entropy: 0
<Window: 292 > X:[ -6 , -5 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 293 > X:[ -6 , -5 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 294 > X:[ -6 , -5 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 295 \rangle X: [-5, -4] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 296 \rangle X: [-5, -4] Y: [-8, -7]
Found Entropy: 0
\{Window: 297 > X:[ -5 , -4 ] Y:[ -7 , -6 ]
Found Entropy: 0
\forall X: [-5, -4] \ Y: [-6, -5]
Found Entropy: 0
\langle \text{Window: } 299 \rangle X:[-5, -4] Y:[-5, -4]
Found Entropy: 0
<Window: 300 > X:[ -5 , -4 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 301 > X:[ -5 , -4 ] Y:[ -3 , -2 ]
Found Entropy: 0
```

```
\langle \text{Window}: 302 \rangle X: [-5, -4] Y: [-2, -1]
Found Entropy: 0
<Window: 303 > X:[-5, -4] Y:[-1, 0]
Found Entropy: 0
<Window: 304 > X:[ -5 , -4 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 305 \rangle X: [-5, -4] Y: [1, 2]
Found Entropy: 0
<Window: 306 > X:[ -5 , -4 ] Y:[ 2 , 3 ]
Found Entropy: 0
\langle \text{Window}: 307 \rangle X: [-5, -4] Y: [3, 4]
Found Entropy: 0
<Window: 308 > X:[ -5 , -4 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 309 \rangle \ \text{X:[} -4 , -3 \ ] \ \text{Y:[} -9 , -8 \ ]
Found Entropy: 0
\langle \text{Window}: 310 \rangle X: [-4, -3] Y: [-8, -7]
Found Entropy: 0
<Window: 311 > X:[ -4 , -3 ] Y:[ -7 , -6 ]
Found Entropy: 0
\langle \text{Window}: 312 \rangle X: [-4, -3] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 313 \rangle X: [-4, -3] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 314 \rangle X: [-4, -3] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 315 \rangle X: [-4, -3] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 316 \rangle X: [-4, -3] Y: [-2, -1]
Found Entropy: 0
<Window: 317 > X:[-4, -3] Y:[-1, 0]
Found Entropy: 0
<Window: 318 > X:[ -4 , -3 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 319 \rangle X: [-4, -3] Y: [1, 2]
Found Entropy: 0
\langle \text{Window}: 320 \rangle X: [-4, -3] Y: [2, 3]
Found Entropy: 0
\{\text{Window: } 321 > X:[-4,-3] Y:[3,4]
Found Entropy: 0
<Window: 322 > X:[-4, -3] Y:[4, 5]
Found Entropy: 0
\langle \text{Window}: 323 \rangle X: [-3, -2] Y: [-9, -8]
Found Entropy: 0
<Window: 324 > X:[ -3 , -2 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 325 > X:[ -3 , -2 ] Y:[ -7 , -6 ]
Found Entropy: 0
```

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\langle \text{Window}: 326 \rangle X: [-3, -2] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 327 \rangle X: [-3, -2] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 328 \rangle X: [-3, -2] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 329 \rangle X: [-3, -2] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 330 \rangle X: [-3, -2] Y: [-2, -1]
Found Entropy: 0
<Window: 331 > X:[ -3 , -2 ] Y:[ -1 , 0 ]
Found Entropy: 0
\langle \text{Window}: 332 \rangle X: [-3, -2] Y: [0, 1]
Found Entropy: 0
\langle \text{Window}: 333 \rangle X: [-3, -2] Y: [1, 2]
Found Entropy: 0
\langle \text{Window}: 334 \rangle X:[-3,-2] Y:[2,3]
Found Entropy: 0
<Window: 335 > X:[ -3 , -2 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window}: 336 \rangle X: [-3, -2] Y: [4, 5]
Found Entropy: 0
\langle \text{Window: } 337 \rangle \text{ X:} [-2, -1] \text{ Y:} [-9, -8]
Found Entropy: 0
\langle \text{Window}: 338 \rangle X: [-2, -1] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 339 \rangle X: [-2, -1] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 340 \rangle X: [-2, -1] Y: [-6, -5]
Found Entropy: 0
\forall x : [-2, -1] \ Y : [-5, -4]
Found Entropy: 0
\langle \text{Window}: 342 \rangle X: [-2, -1] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 343 \rangle X: [-2, -1] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 344 \rangle X: [-2, -1] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 345 \rangle X: [-2, -1] Y: [-1, 0]
Found Entropy: 0
<Window: 346 > X:[ -2 , -1 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 347 \rangle X:[-2,-1] Y:[1,2]
Found Entropy: 0
<Window: 348 > X:[ -2 , -1 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 349 > X:[ -2 , -1 ] Y:[ 3 , 4 ]
Found Entropy: 0
```

```
\langle \text{Window}: 350 \rangle X: [-2, -1] Y: [4, 5]
Found Entropy: 0
<Window: 351 > X:[-1, 0] Y:[-9, -8]
Found Entropy: 0
<Window: 352 > X:[-1, 0] Y:[-8, -7]
Found Entropy: 0
\langle \text{Window}: 353 \rangle X: [-1, 0] Y: [-7, -6]
Found Entropy: 0
<Window: 354 > X:[ -1 , 0 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 355 \rangle X: [-1, 0] Y: [-5, -4]
Found Entropy: 0
<Window: 356 > X:[ -1 , 0 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 357 > X:[-1, 0] Y:[-3, -2]
Found Entropy: 0
<Window: 358 > X:[ -1 , 0 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 359 > X:[-1, 0] Y:[-1, 0]
Found Entropy: 0
<Window: 360 > X:[ -1 , 0 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 361 > X:[ -1 , 0 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 362 > X:[ -1 , 0 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 363 > X:[ -1 , 0 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 364 > X:[ -1 , 0 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 365 > X:[ 0 , 1 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 366 > X:[ 0 , 1 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 367 > X:[0,1] Y:[-7,-6]
Found Entropy: 0
<Window: 368 > X:[ 0 , 1 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 369 > X:[ 0 , 1 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 370 > X:[ 0 , 1 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 371 \rangle X:[0,1] Y:[-3,-2]
Found Entropy: 0
<Window: 372 > X:[ 0 , 1 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 373 > X:[ 0 , 1 ] Y:[ -1 , 0 ]
Found Entropy: 0
```

```
<Window: 374 > X:[ 0 , 1 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 375 > X:[ 0 , 1 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 376 > X:[ 0 , 1 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 377 > X:[0,1] Y:[3,4]
Found Entropy: 0
<Window: 378 > X:[0,1] Y:[4,5]
Found Entropy: 0
\langle Window: 379 \rangle X:[1,2] Y:[-9,-8]
Found Entropy: 0
<Window: 380 > X:[1,2] Y:[-8,-7]
Found Entropy: 0
\langle \text{Window}: 381 \rangle X: [1, 2] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 382 \rangle X: [1, 2] Y: [-6, -5]
Found Entropy: 0
<Window: 383 > X:[ 1 , 2 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 384 \rangle X: [1, 2] Y: [-4, -3]
Found Entropy: 0
<Window: 385 > X:[1,2] Y:[-3,-2]
Found Entropy: 0
<Window: 386 > X:[ 1 , 2 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 387 > X:[1, 2] Y:[-1, 0]
Found Entropy: 0
<Window: 388 > X:[ 1 , 2 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 389 \rangle X:[1,2] Y:[1,2]
Found Entropy: 0
<Window: 390 > X:[1,2] Y:[2,3]
Found Entropy: 0
\langle Window: 391 \rangle X:[1,2] Y:[3,4]
Found Entropy: 0
\{\text{Window: } 392 > X:[1,2] Y:[4,5]
Found Entropy: 0
\langle \text{Window}: 393 \rangle X: [2, 3] Y: [-9, -8]
Found Entropy: 0
<Window: 394 > X:[2,3] Y:[-8,-7]
Found Entropy: 0
<Window: 395 > X:[ 2 , 3 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 396 > X:[ 2 , 3 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 397 > X:[ 2 , 3 ] Y:[ -5 , -4 ]
Found Entropy: 0
```

```
\langle \text{Window}: 398 \rangle X: [2, 3] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 399 \rangle X: [2, 3] Y: [-3, -2]
Found Entropy: 0
\{\text{Window: } 400 > X: [2, 3] Y: [-2, -1]
Found Entropy: 0
\{\text{Window: } 401 > X: [2, 3] Y: [-1, 0]
Found Entropy: 0
\{\text{Window: } 402 > X:[2,3] Y:[0,1]
Found Entropy: 0
<Window: 403 > X:[ 2 , 3 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 404 > X:[2,3] Y:[2,3]
Found Entropy: 0
<Window: 405 > X:[2,3] Y:[3,4]
Found Entropy: 0
<Window: 406 > X:[ 2 , 3 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 407 > X:[3, 4] Y:[-9, -8]
Found Entropy: 0
<Window: 408 > X:[3, 4] Y:[-8, -7]
Found Entropy: 0
<Window: 409 > X:[3,4] Y:[-7,-6]
Found Entropy: 0
<Window: 410 > X:[3, 4] Y:[-6, -5]
Found Entropy: 0
<Window: 411 > X:[ 3 , 4 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 412 \rangle X: [3, 4] Y: [-4, -3]
Found Entropy: 0
<Window: 413 > X:[ 3 , 4 ] Y:[ -3 , -2 ]
Found Entropy: 0
\{Window: 414 > X:[3,4] Y:[-2,-1]
Found Entropy: 0
\langle Window: 415 \rangle X:[3,4] Y:[-1,0]
Found Entropy: 0
<Window: 416 > X:[ 3 , 4 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 417 > X:[ 3 , 4 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 418 > X:[ 3 , 4 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 419 > X:[3, 4] Y:[3, 4]
Found Entropy: 0
<Window: 420 > X:[ 3 , 4 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 421 > X:[ 4 , 5 ] Y:[ -9 , -8 ]
Found Entropy: 0
```

```
\{\text{Window: } 422 > X:[4,5] Y:[-8,-7]
Found Entropy: 0
<Window: 423 > X:[ 4 , 5 ] Y:[ -7 , -6 ]
Found Entropy: 0
\{\text{Window: } 424 > X: [4, 5] Y: [-6, -5]
Found Entropy: 0
\{\text{Window: } 425 > X: [4, 5] Y: [-5, -4]
Found Entropy: 0
\{\text{Window: } 426 > X: [4, 5] Y: [-4, -3]
Found Entropy: 0
\{\text{Window}: 427 > X: [4, 5] Y: [-3, -2]
Found Entropy: 0
\{\text{Window}: 428 > X: [4, 5] Y: [-2, -1]
Found Entropy: 0
<Window: 429 > X:[ 4 , 5 ] Y:[ -1 , 0 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 430 > X:[ 4 , 5 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 431 > X:[ 4 , 5 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 432 > X:[ 4 , 5 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 433 > X:[4,5] Y:[3,4]
Found Entropy: 0
<Window: 434 > X:[4,5] Y:[4,5]
Found Entropy: 0
<Window: 435 > X:[5,6] Y:[-9,-8]
Found Entropy: 0
<Window: 436 > X:[5,6] Y:[-8,-7]
Found Entropy: 0
<Window: 437 > X:[5,6] Y:[-7,-6]
Found Entropy: 0
<Window: 438 > X:[5,6] Y:[-6,-5]
Found Entropy: 0
<Window: 439 > X:[5,6] Y:[-5,-4]
Found Entropy: 0
<Window: 440 > X:[5,6] Y:[-4,-3]
Found Entropy: 0
<Window: 441 > X:[5,6] Y:[-3,-2]
Found Entropy: 0
<Window: 442 > X:[5,6] Y:[-2,-1]
Found Entropy: 0
<Window: 443 > X:[5,6] Y:[-1,0]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.6365141682948128
```

```
<Window: 444 > X:[5,6] Y:[0,1]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 445 > X:[ 5 , 6 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 446 > X:[ 5 , 6 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 447 > X:[ 5 , 6 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 448 > X:[5,6] Y:[4,5]
Found Entropy: 0
<Window: 449 > X:[ 6 , 7 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 450 > X:[ 6 , 7 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 451 > X:[6,7] Y:[-7,-6]
Found Entropy: 0
<Window: 452 > X:[6, 7] Y:[-6, -5]
Found Entropy: 0
<Window: 453 > X:[ 6 , 7 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 454 > X:[6,7] Y:[-4,-3]
Found Entropy: 0
<Window: 455 > X:[ 6 , 7 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 456 > X:[ 6 , 7 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 457 > X:[6, 7] Y:[-1, 0]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.6365141682948128
<Window: 458 > X:[6,7] Y:[0,1]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.6365141682948128
<Window: 459 > X:[ 6 , 7 ] Y:[ 1 , 2 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 460 > X:[6, 7] Y:[2, 3]
Found Entropy: 0
<Window: 461 > X:[ 6 , 7 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 462 > X:[6,7] Y:[4,5]
Found Entropy: 0
<Window: 463 > X:[ 7 , 8 ] Y:[ -9 , -8 ]
```

```
Found Entropy: 0
<Window: 464 > X:[7,8] Y:[-8,-7]
Found Entropy: 0
<Window: 465 > X:[7,8] Y:[-7,-6]
Found Entropy: 0
<Window: 466 > X:[7,8] Y:[-6,-5]
Found Entropy: 0
<Window: 467 > X:[ 7 , 8 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 468 \rangle X: [7, 8] Y: [-4, -3]
Found Entropy: 0
<Window: 469 > X:[ 7 , 8 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 470 > X:[7,8] Y:[-2,-1]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 471 > X:[ 7 , 8 ] Y:[ -1 , 0 ]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 472 > X:[ 7 , 8 ] Y:[ 0 , 1 ]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.5623351446188083
<Window: 473 > X:[7,8] Y:[1,2]
Found Entropy: 0
<Window: 474 > X:[ 7 , 8 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 475 > X:[7,8] Y:[3,4]
Found Entropy: 0
<Window: 476 > X:[ 7 , 8 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 477 \rangle X: [8, 9] Y: [-9, -8]
Found Entropy: 0
<Window: 478 > X:[8,9] Y:[-8,-7]
Found Entropy: 0
<Window: 479 > X:[8,9] Y:[-7,-6]
Found Entropy: 0
<Window: 480 > X:[8,9] Y:[-6,-5]
Found Entropy: 0
<Window: 481 > X:[8,9] Y:[-5,-4]
Found Entropy: 0
<Window: 482 > X:[8, 9] Y:[-4, -3]
Found Entropy: 0
<Window: 483 > X:[8, 9] Y:[-3, -2]
Found Entropy: 0
```

```
\{\text{Window: } 484 > X:[8,9] Y:[-2,-1]
Found Entropy: 0
<Window: 485 > X:[8,9] Y:[-1,0]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.6365141682948128
<Window: 486 > X:[ 8 , 9 ] Y:[ 0 , 1 ]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 487 > X:[ 8 , 9 ] Y:[ 1 , 2 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 488 > X:[8,9] Y:[2,3]
Found Entropy: 0
<Window: 489 > X:[8, 9] Y:[3, 4]
Found Entropy: 0
<Window: 490 > X:[8, 9] Y:[4, 5]
Found Entropy: 0
<Window: 491 > X:[ 9 , 10 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 492 > X:[ 9 , 10 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 493 > X:[ 9 , 10 ] Y:[ -7 , -6 ]
Found Entropy: 0
\langle \text{Window}: 494 \rangle X: [9, 10] Y: [-6, -5]
Found Entropy: 0
<Window: 495 > X:[ 9 , 10 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 496 > X:[ 9 , 10 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 497 > X:[9, 10] Y:[-3, -2]
Found Entropy: 0
<Window: 498 > X:[9, 10] Y:[-2, -1]
Found Entropy: 0
<Window: 499 > X:[9, 10] Y:[-1, 0]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 500 > X:[ 9 , 10 ] Y:[ 0 , 1 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 501 > X:[ 9 , 10 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 502 > X:[ 9 , 10 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.6931471805599453
```

```
<Window: 503 > X:[ 9 , 10 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 504 > X:[ 9 , 10 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 505 \rangle X: [10, 11] Y: [-9, -8]
Found Entropy: 0
<Window: 506 > X:[ 10 , 11 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 507 > X:[ 10 , 11 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 508 > X:[ 10 , 11 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 509 > X:[ 10 , 11 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window: 510} \rangle \text{ X:[ 10 , 11 ] Y:[ -4 , -3 ]}
Found Entropy: 0
<Window: 511 > X:[ 10 , 11 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 512 > X:[10, 11] Y:[-2, -1]
Found Entropy: 0
<Window: 513 > X:[ 10 , 11 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 514 > X:[ 10 , 11 ] Y:[ 0 , 1 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 515 > X:[ 10 , 11 ] Y:[ 1 , 2 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 516 > X:[ 10 , 11 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 517 > X:[ 10 , 11 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 518 > X:[ 10 , 11 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 519 > X:[ 11 , 12 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 520 > X:[ 11 , 12 ] Y:[ -8 , -7 ]
Found Entropy: 0
\forall X:[11, 12] Y:[-7, -6]
Found Entropy: 0
<Window: 522 > X:[ 11 , 12 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 523 > X:[ 11 , 12 ] Y:[ -5 , -4 ]
Found Entropy: 0
\forall Window: 524 > X:[ 11 , 12 ] Y:[ -4 , -3 ]
```

```
Found Entropy: 0
<Window: 525 > X:[11, 12] Y:[-3, -2]
Found Entropy: 0
\{Window: 526 > X:[11, 12] Y:[-2, -1]
Found Entropy: 0
<Window: 527 > X:[ 11 , 12 ] Y:[ -1 , 0 ]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 528 > X:[ 11 , 12 ] Y:[ 0 , 1 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 529 > X:[ 11 , 12 ] Y:[ 1 , 2 ]
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.6931471805599453
<Window: 530 > X:[ 11 , 12 ] Y:[ 2 , 3 ]
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 531 > X:[ 11 , 12 ] Y:[ 3 , 4 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 532 > X:[ 11 , 12 ] Y:[ 4 , 5 ]
Found Entropy: 0
\forall \text{Window: } 533 > X:[12, 13] Y:[-9, -8]
Found Entropy: 0
\langle \text{Window: } 534 \rangle \text{ X:[ } 12 \text{ , } 13 \text{ ] } \text{ Y:[ } -8 \text{ , } -7 \text{ ]}
Found Entropy: 0
<Window: 535 > X:[ 12 , 13 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 536 > X:[ 12 , 13 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 537 \rangle \text{ X:[ } 12 \text{ , } 13 \text{ ] } \text{ Y:[ } -5 \text{ , } -4 \text{ ]}
Found Entropy: 0
<Window: 538 > X:[ 12 , 13 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 539 \rangle \ \text{X:} [ 12 , 13 ] \ \text{Y:} [ -3 , -2 ]
Found Entropy: 0
\langle \text{Window: 540} \rangle \text{ X:[ 12 , 13 ] Y:[ -2 , -1 ]}
Found Entropy: 0
\{\text{Window: 541} > \text{X:[12,13]} \text{Y:[-1,0]}
Found a sample of class: 0
Found Entropy: 0.0
<Window: 542 > X:[ 12 , 13 ] Y:[ 0 , 1 ]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
```

```
Found Entropy: 0.6365141682948128
<Window: 543 > X:[ 12 , 13 ] Y:[ 1 , 2 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 544 > X:[ 12 , 13 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 545 > X:[ 12 , 13 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 1.0397207708399179
<Window: 546 > X:[ 12 , 13 ] Y:[ 4 , 5 ]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 1.0986122886681096
<Window: 547 > X:[ 13 , 14 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 548 > X:[ 13 , 14 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 549 > X:[ 13 , 14 ] Y:[ -7 , -6 ]
Found Entropy: 0
\langle \text{Window}: 550 \rangle X: [13, 14] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 551 \rangle X: [13, 14] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 552 \rangle X: [13, 14] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 553 \rangle X: [13, 14] Y: [-3, -2]
Found Entropy: 0
\{Window: 554 > X:[13,14]Y:[-2,-1]
Found Entropy: 0
<Window: 555 > X:[ 13 , 14 ] Y:[ -1 , 0 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 556 > X:[ 13 , 14 ] Y:[ 0 , 1 ]
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.6931471805599453
<Window: 557 > X:[ 13 , 14 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 558 > X:[ 13 , 14 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
```

```
Found Entropy: 0.0
<Window: 559 > X:[ 13 , 14 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 560 > X:[ 13 , 14 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 561 > X:[14, 15] Y:[-9, -8]
Found Entropy: 0
<Window: 562 > X:[ 14 , 15 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 563 > X:[ 14 , 15 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 564 > X:[ 14 , 15 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 565 > X:[ 14 , 15 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 566 > X:[ 14 , 15 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 567 \rangle X: [14, 15] Y: [-3, -2]
Found Entropy: 0
<Window: 568 > X:[ 14 , 15 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 569 > X:[ 14 , 15 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 570 > X:[ 14 , 15 ] Y:[ 0 , 1 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 571 > X:[ 14 , 15 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 572 > X:[ 14 , 15 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 573 > X:[ 14 , 15 ] Y:[ 3 , 4 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 574 > X:[ 14 , 15 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 575 > X:[ 15 , 16 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 576 > X:[ 15 , 16 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 577 > X:[ 15 , 16 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 578 > X:[ 15 , 16 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: 579} \rangle X: [15, 16] Y: [-5, -4]
Found Entropy: 0
<Window: 580 > X:[ 15 , 16 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: 581} \rangle \text{ X:[15,16] Y:[-3,-2]}
```

```
Found Entropy: 0
<Window: 582 > X:[ 15 , 16 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 583 > X:[ 15 , 16 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 584 > X:[15, 16] Y:[0, 1]
Found Entropy: 0
<Window: 585 > X:[ 15 , 16 ] Y:[ 1 , 2 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 586 > X:[ 15 , 16 ] Y:[ 2 , 3 ]
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 587 > X:[ 15 , 16 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 588 > X:[ 15 , 16 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 589 > X:[ 16 , 17 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 590 > X:[ 16 , 17 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 591 > X:[ 16 , 17 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 592 > X:[ 16 , 17 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 593 > X:[ 16 , 17 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 594 > X:[ 16 , 17 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: 595} \rangle X: [16, 17] Y: [-3, -2]
Found Entropy: 0
<Window: 596 > X:[ 16 , 17 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 597 > X:[ 16 , 17 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 598 > X:[ 16 , 17 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 599 > X:[ 16 , 17 ] Y:[ 1 , 2 ]
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 600 > X:[ 16 , 17 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 601 > X:[ 16 , 17 ] Y:[ 3 , 4 ]
```

```
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.6365141682948128
<Window: 602 > X:[ 16 , 17 ] Y:[ 4 , 5 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 603 > X:[ 17 , 18 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 604 > X:[ 17 , 18 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 605 > X:[ 17 , 18 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 606 > X:[ 17 , 18 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 607 > X:[ 17 , 18 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 608 > X:[ 17 , 18 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 609 \rangle \text{ X:} [17, 18] \text{ Y:} [-3, -2]
Found Entropy: 0
\langle \text{Window: } 610 \rangle \text{ X:} [17, 18] \text{ Y:} [-2, -1]
Found Entropy: 0
<Window: 611 > X:[ 17 , 18 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 612 > X:[ 17 , 18 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 613 > X:[ 17 , 18 ] Y:[ 1 , 2 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 614 > X:[ 17 , 18 ] Y:[ 2 , 3 ]
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.5623351446188083
<Window: 615 > X:[ 17 , 18 ] Y:[ 3 , 4 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 616 > X:[ 17 , 18 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 617 \rangle \text{ X:} [ 18 , 19 ] \text{ Y:} [ -9 , -8 ]
Found Entropy: 0
<Window: 618 > X:[ 18 , 19 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 619 > X:[ 18 , 19 ] Y:[ -7 , -6 ]
Found Entropy: 0
```

```
\langle \text{Window: } 620 \rangle \text{ X:} [ 18 , 19 ] \text{ Y:} [ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 621 \rangle \text{ X:} [ 18 , 19 ] \text{ Y:} [ -5 , -4 ]
Found Entropy: 0
\{Window: 622 > X:[18,19]Y:[-4,-3]
Found Entropy: 0
<Window: 623 > X:[ 18 , 19 ] Y:[ -3 , -2 ]
Found Entropy: 0
\{\text{Window: } 624 > X: [18, 19] Y: [-2, -1]
Found Entropy: 0
<Window: 625 > X:[ 18 , 19 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 626 > X:[ 18 , 19 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 627 > X:[ 18 , 19 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 628 > X:[ 18 , 19 ] Y:[ 2 , 3 ]
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 629 > X:[ 18 , 19 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.6365141682948128
<Window: 630 > X:[ 18 , 19 ] Y:[ 4 , 5 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 631 > X:[ 19 , 20 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 632 > X:[ 19 , 20 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 633 > X:[ 19 , 20 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 634 > X:[ 19 , 20 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 635 \rangle \text{ X:} [ 19 , 20 ] \text{ Y:} [ -5 , -4 ]
Found Entropy: 0
\langle \text{Window: } 636 \rangle \text{ X:} [19, 20] \text{ Y:} [-4, -3]
Found Entropy: 0
<Window: 637 > X:[ 19 , 20 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window: 638} \rangle \text{ X:} [ 19 , 20 ] \text{ Y:} [ -2 , -1 ]
Found Entropy: 0
<Window: 639 > X:[ 19 , 20 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 640 > X:[ 19 , 20 ] Y:[ 0 , 1 ]
```

```
Found Entropy: 0
<Window: 641 > X:[ 19 , 20 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 642 > X:[19, 20] Y:[2, 3]
Found Entropy: 0
<Window: 643 > X:[ 19 , 20 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 644 > X:[19, 20] Y:[4, 5]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.9502705392332347
<Window: 645 > X:[ 20 , 21 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 646 > X:[ 20 , 21 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window}: 647 \rangle X: [20, 21] Y: [-7, -6]
Found Entropy: 0
<Window: 648 > X:[ 20 , 21 ] Y:[ -6 , -5 ]
Found Entropy: 0
\{\text{Window: } 649 > X: [20, 21] Y: [-5, -4]
Found Entropy: 0
\{\text{Window: }650 > X: [20, 21] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window: } 651 \rangle \ \text{X:} [ 20 , 21 ] \ \text{Y:} [ -3 , -2 ]
Found Entropy: 0
<Window: 652 > X:[ 20 , 21 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 653 > X:[ 20 , 21 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 654 > X:[20, 21] Y:[0, 1]
Found Entropy: 0
<Window: 655 > X:[ 20 , 21 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 656 > X:[ 20 , 21 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 657 > X:[ 20 , 21 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 658 > X:[ 20 , 21 ] Y:[ 4 , 5 ]
Found a sample of class: 1
Found Entropy: 0.0
Total Count: 658
Expected Count: 658
```

```
OKAY: True
----Done--- 23.804845013831088
Done!
-26 21 -9 5
You Can use this matrix now.
X_{min} = -26
X \max = 21
Y_min = -9
Y \max = 5
And the Matrix Shape: 47 * 14
\{Window: 1 > X:[ -26 , -25 ] Y:[ -9 , -8 ]
Found Entropy: 0
\{\text{Window: 2 > X:[-26,-25] Y:[-8,-7]}
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6931471805599453
\langle \text{Window}: 3 \rangle X: [-26, -25] Y: [-7, -6]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.6931471805599453
\langle \text{Window: 4} \rangle \text{ X:[-26,-25] Y:[-6,-5]}
Found Entropy: 0
\langle \text{Window}: 5 \rangle X: [-26, -25] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window: 6} \rangle \text{ X:[-26, -25] Y:[-4, -3]}
Found Entropy: 0
\langle \text{Window: 7 > X:[-26,-25] Y:[-3,-2]}
Found Entropy: 0
\langle \text{Window: 8 > X:[-26,-25] Y:[-2,-1]}
Found Entropy: 0
\langle \text{Window: 9 > X:[-26,-25] Y:[-1,0]}
Found Entropy: 0
\langle \text{Window}: 10 \rangle X: [-26, -25] Y: [0, 1]
Found Entropy: 0
\{\text{Window: } 11 > X:[-26, -25] Y:[1, 2]
Found Entropy: 0
\{\text{Window: } 12 > \text{X:} [-26, -25] \text{ Y:} [2, 3]
Found Entropy: 0
<Window: 13 > X:[ -26 , -25 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 14 > X:[ -26 , -25 ] Y:[ 4 , 5 ]
Found Entropy: 0
\forall 15 > X:[-25, -24] Y:[-9, -8]
Found Entropy: 0
\langle \text{Window}: 16 \rangle X: [-25, -24] Y: [-8, -7]
Found a sample of class: 1
```

```
Found a sample of class: 0
Found Entropy: 0.6931471805599453
\langle \text{Window}: 17 > X:[-25, -24] Y:[-7, -6]
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 1.0397207708399179
\langle \text{Window}: 18 \rangle X: [-25, -24] Y: [-6, -5]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 19 \rangle X: [-25, -24] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 20 \rangle X: [-25, -24] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 21 \rangle X: [-25, -24] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 22 \rangle X: [-25, -24] Y: [-2, -1]
Found Entropy: 0
<Window: 23 > X:[ -25 , -24 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 24 > X:[ -25 , -24 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 25 \rangle X: [-25, -24] Y: [1, 2]
Found Entropy: 0
\langle \text{Window}: 26 \rangle X: [-25, -24] Y: [2, 3]
Found Entropy: 0
<Window: 27 > X:[ -25 , -24 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window: 28} \rangle X: [-25, -24] Y: [4, 5]
Found Entropy: 0
\langle \text{Window: } 29 \rangle \text{ X:} [ -24 , -23 ] \text{ Y:} [ -9 , -8 ]
Found Entropy: 0
\{Window: 30 > X: [ -24 , -23 ] Y: [ -8 , -7 ]
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 0.6931471805599453
\langle \text{Window}: 31 > X: [ -24 , -23 ] Y: [ -7 , -6 ]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 1.0397207708399179
\langle \text{Window}: 32 \rangle X: [-24, -23] Y: [-6, -5]
Found a sample of class: 0
Found Entropy: 0.0
\forall Window: 33 > X:[ -24 , -23 ] Y:[ -5 , -4 ]
Found Entropy: 0
```

```
\langle \text{Window}: 34 \rangle X: [-24, -23] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 35 \rangle X: [-24, -23] Y: [-3, -2]
Found Entropy: 0
<Window: 36 > X:[ -24 , -23 ] Y:[ -2 , -1 ]
Found Entropy: 0
\langle \text{Window}: 37 \rangle X: [-24, -23] Y: [-1, 0]
Found Entropy: 0
<Window: 38 > X:[-24, -23] Y:[0, 1]
Found Entropy: 0
\langle \text{Window}: 39 \rangle X: [-24, -23] Y: [1, 2]
Found Entropy: 0
\{\text{Window: } 40 > X: [ -24 , -23 ] Y: [ 2 , 3 ] \}
Found Entropy: 0
<Window: 41 > X:[ -24 , -23 ] Y:[ 3 , 4 ]
Found Entropy: 0
\{\text{Window: } 42 > X: [-24, -23] Y: [4, 5]
Found Entropy: 0
<Window: 43 > X:[-23, -22] Y:[-9, -8]
Found Entropy: 0
\langle \text{Window}: 44 \rangle X: [-23, -22] Y: [-8, -7]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 45 \rangle X: [-23, -22] Y: [-7, -6]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.6931471805599453
\{\text{Window: } 46 > \text{X:} [-23, -22] \text{ Y:} [-6, -5] \}
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 0.6931471805599453
\{Window: 47 > X: [ -23 , -22 ] Y: [ -5 , -4 ] 
Found Entropy: 0
\langle \text{Window: } 48 \rangle \ \text{X:[} -23 \ , -22 \ ] \ \text{Y:[} -4 \ , -3 \ ]
Found Entropy: 0
\langle \text{Window: } 49 \rangle \ \text{X:[} -23 , -22 \ ] \ \text{Y:[} -3 , -2 \ ]
Found Entropy: 0
\langle \text{Window: 50} \rangle \text{ X: [ -23 , -22 ] Y: [ -2 , -1 ]}
Found Entropy: 0
\langle \text{Window}: 51 \rangle X: [-23, -22] Y: [-1, 0]
Found Entropy: 0
<Window: 52 > X:[ -23 , -22 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 53 > X:[ -23 , -22 ] Y:[ 1 , 2 ]
Found Entropy: 0
\{\text{Window: } 54 > X:[-23, -22] Y:[2, 3]
```

```
Found Entropy: 0
\langle \text{Window: } 55 \rangle \ \text{X:[} -23 \ , -22 \ ] \ \text{Y:[} 3 \ , 4 \ ]
Found Entropy: 0
\{\text{Window: 56} > \text{X:[-23,-22]} \text{Y:[4,5]}
Found Entropy: 0
\{Window: 57 > X:[ -22 , -21 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window: 58} \rangle \text{ X:} [-22, -21] \text{ Y:} [-8, -7]
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6931471805599453
\langle \text{Window}: 59 \rangle X: [-22, -21] Y: [-7, -6]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\{\text{Window: }60 > \text{X:}[-22, -21] \text{ Y:}[-6, -5]
Found Entropy: 0
\langle \text{Window}: 61 \rangle X: [-22, -21] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 62 \rangle X: [-22, -21] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window: } 63 \rangle \ \text{X:} [ -22 , -21 ] \ \text{Y:} [ -3 , -2 ]
Found Entropy: 0
\{\text{Window: } 64 > X: [-22, -21] \ Y: [-2, -1] \}
Found Entropy: 0
\langle \text{Window}: 65 \rangle X: [-22, -21] Y: [-1, 0]
Found Entropy: 0
<Window: 66 > X:[-22, -21] Y:[0, 1]
Found Entropy: 0
\forall \text{Window: } 67 > X:[-22, -21] Y:[1, 2]
Found Entropy: 0
<Window: 68 > X:[ -22 , -21 ] Y:[ 2 , 3 ]
Found Entropy: 0
\{\text{Window: 69} > \text{X:[-22,-21]} \text{Y:[3,4]}
Found Entropy: 0
\langle \text{Window: 70} \rangle \text{ X:[-22, -21] Y:[4,5]}
Found Entropy: 0
\langle \text{Window: 71} \rangle \text{ X: [-21, -20] Y: [-9, -8]}
Found a sample of class: 2
Found Entropy: 0.0
\forall x \in Y : [-21, -20] Y : [-8, -7]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 0.6365141682948128
\langle \text{Window}: 73 \rangle X: [-21, -20] Y: [-7, -6]
Found a sample of class: 2
Found a sample of class: 2
```

```
Found a sample of class: 0
Found Entropy: 0.6365141682948128
\forall X: [-21, -20] Y: [-6, -5]
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 0.6931471805599453
\langle \text{Window}: 75 \rangle X: [-21, -20] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 76 \rangle X: [-21, -20] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 77 > X: [ -21 , -20 ] Y: [ -3 , -2 ]
Found Entropy: 0
\{Window: 78 > X:[ -21 , -20 ] Y:[ -2 , -1 ]
Found Entropy: 0
\langle \text{Window}: 79 \rangle X: [-21, -20] Y: [-1, 0]
Found Entropy: 0
<Window: 80 > X:[ -21 , -20 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window: 81} \rangle \text{ X:[-21,-20] Y:[1,2]}
Found Entropy: 0
<Window: 82 > X:[ -21 , -20 ] Y:[ 2 , 3 ]
Found Entropy: 0
\langle \text{Window: 83} \rangle \text{ X: [ -21 , -20 ] Y: [ 3 , 4 ]}
Found Entropy: 0
\{\text{Window: 84} > \text{X:[-21,-20]} \text{Y:[4,5]}
Found Entropy: 0
\langle \text{Window: 85} \rangle \text{ X: [ -20 , -19 ] Y: [ -9 , -8 ]}
Found Entropy: 0
\langle \text{Window}: 86 \rangle X: [-20, -19] Y: [-8, -7]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 87 \rangle X: [-20, -19] Y: [-7, -6]
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 1.0397207708399179
\forall X: [-20, -19] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window: 89} \rangle \text{ X: [ -20 , -19 ] Y: [ -5 , -4 ]}
Found Entropy: 0
\langle \text{Window: } 90 \rangle \text{ X: [ } -20 \text{ , } -19 \text{ ] } \text{ Y: [ } -4 \text{ , } -3 \text{ ]}
Found Entropy: 0
\forall 1 > X:[-20, -19] Y:[-3, -2]
Found Entropy: 0
```

```
\langle \text{Window: } 92 \rangle \text{ X: [} -20 , -19 ] \text{ Y: [} -2 , -1 ]
Found Entropy: 0
\langle \text{Window: } 93 \rangle \ \text{X:[} -20 , -19 \ ] \ \text{Y:[} -1 , 0 \ ]
Found Entropy: 0
\{\text{Window: } 94 > X: [-20, -19] Y: [0, 1]
Found Entropy: 0
<Window: 95 > X:[ -20 , -19 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 96 > X:[ -20 , -19 ] Y:[ 2 , 3 ]
Found Entropy: 0
\langle \text{Window}: 97 \rangle X: [-20, -19] Y: [3, 4]
Found Entropy: 0
<Window: 98 > X:[ -20 , -19 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: 99} \rangle \text{ X:} [-19, -18] \text{ Y:} [-9, -8]
Found Entropy: 0
<Window: 100 > X:[ -19 , -18 ] Y:[ -8 , -7 ]
Found a sample of class: 2
Found Entropy: 0.0
\langle \text{Window}: 101 \rangle X: [-19, -18] Y: [-7, -6]
Found Entropy: 0
<Window: 102 > X:[ -19 , -18 ] Y:[ -6 , -5 ]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window: } 103 \rangle \ \text{X:[} -19 \ , -18 \ ] \ \text{Y:[} -5 \ , -4 \ ]
Found Entropy: 0
\forall \text{Window: } 104 > X:[-19, -18] Y:[-4, -3]
Found Entropy: 0
\langle \text{Window}: 105 \rangle X: [-19, -18] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 106 \rangle X: [-19, -18] Y: [-2, -1]
Found Entropy: 0
<Window: 107 > X:[ -19 , -18 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 108 > X:[ -19 , -18 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 109 > X:[ -19 , -18 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 110 > X:[ -19 , -18 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 111 > X:[ -19 , -18 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 112 > X:[ -19 , -18 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 113 \rangle \text{ X:[} -18 , -17 ] \text{ Y:[} -9 , -8 ]
Found Entropy: 0
<Window: 114 > X:[ -18 , -17 ] Y:[ -8 , -7 ]
Found Entropy: 0
```

```
\langle \text{Window}: 115 \rangle X: [-18, -17] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 116 \rangle X: [-18, -17] Y: [-6, -5]
Found Entropy: 0
\{Window: 117 > X:[-18, -17] Y:[-5, -4]
Found Entropy: 0
<Window: 118 > X:[ -18 , -17 ] Y:[ -4 , -3 ]
Found Entropy: 0
\{Window: 119 > X:[-18, -17] Y:[-3, -2]
Found Entropy: 0
\langle \text{Window}: 120 \rangle X: [-18, -17] Y: [-2, -1]
Found Entropy: 0
<Window: 121 > X:[ -18 , -17 ] Y:[ -1 , 0 ]
Found Entropy: 0
\langle \text{Window: } 122 \rangle X:[-18, -17] Y:[0, 1]
Found Entropy: 0
\langle \text{Window: } 123 \rangle X: [ -18 , -17 ] Y: [ 1 , 2 ]
Found Entropy: 0
<Window: 124 > X:[ -18 , -17 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 125 > X:[ -18 , -17 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window: } 126 \rangle \ \text{X:[} -18 \ , -17 \ ] \ \text{Y:[} 4 \ , 5 \ ]
Found Entropy: 0
<Window: 127 > X:[ -17 , -16 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window: } 128 \rangle \text{ X:[} -17 , -16 ] \text{ Y:[} -8 , -7 ]
Found Entropy: 0
\forall \text{Window: } 129 > X:[-17, -16] Y:[-7, -6]
Found Entropy: 0
\langle \text{Window: } 130 \rangle \text{ X:[} -17 , -16 ] \text{ Y:[} -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 131 \rangle \ \text{X:[} -17 \ , -16 \ ] \ \text{Y:[} -5 \ , -4 \ ]
Found Entropy: 0
\langle \text{Window}: 132 \rangle X: [-17, -16] Y: [-4, -3]
Found Entropy: 0
\{Window: 133 > X: [ -17 , -16 ] Y: [ -3 , -2 ] 
Found Entropy: 0
\langle \text{Window}: 134 \rangle X: [-17, -16] Y: [-2, -1]
Found Entropy: 0
<Window: 135 > X:[ -17 , -16 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 136 > X:[ -17 , -16 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 137 > X:[ -17 , -16 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 138 > X:[ -17 , -16 ] Y:[ 2 , 3 ]
Found Entropy: 0
```

```
\langle \text{Window: } 139 \rangle X:[-17, -16] Y:[3, 4]
Found Entropy: 0
<Window: 140 > X:[ -17 , -16 ] Y:[ 4 , 5 ]
Found Entropy: 0
\{Window: 141 > X:[-16, -15] Y:[-9, -8]
Found Entropy: 0
<Window: 142 > X:[ -16 , -15 ] Y:[ -8 , -7 ]
Found Entropy: 0
\{Window: 143 > X: [ -16 , -15 ] Y: [ -7 , -6 ] 
Found Entropy: 0
\langle \text{Window}: 144 \rangle X: [-16, -15] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 145 \rangle X: [-16, -15] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 146 \rangle X: [-16, -15] Y: [-4, -3]
Found Entropy: 0
\forall Window: 147 > X:[ -16 , -15 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 148 > X:[ -16 , -15 ] Y:[ -2 , -1 ]
Found Entropy: 0
\langle \text{Window}: 149 \rangle X: [-16, -15] Y: [-1, 0]
Found Entropy: 0
\langle \text{Window: } 150 \rangle \text{ X:[} -16 , -15 ] \text{ Y:[} 0 , 1 ]
Found Entropy: 0
\langle \text{Window: } 151 \rangle \ \text{X:[} -16 \ , -15 \ ] \ \text{Y:[} 1 \ , 2 \ ]
Found Entropy: 0
<Window: 152 > X:[ -16 , -15 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 153 > X:[ -16 , -15 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 154 > X:[ -16 , -15 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 155 \rangle X: [-15, -14] Y: [-9, -8]
Found Entropy: 0
<Window: 156 > X:[ -15 , -14 ] Y:[ -8 , -7 ]
Found Entropy: 0
\{Window: 157 > X:[-15, -14] Y:[-7, -6]
Found Entropy: 0
<Window: 158 > X:[ -15 , -14 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 159 > X:[ -15 , -14 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 160 > X:[ -15 , -14 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 161 > X:[ -15 , -14 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 162 > X:[ -15 , -14 ] Y:[ -2 , -1 ]
Found Entropy: 0
```

```
<Window: 163 > X:[ -15 , -14 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 164 > X:[ -15 , -14 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 165 > X:[ -15 , -14 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 166 > X:[ -15 , -14 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 167 > X:[ -15 , -14 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 168 > X:[ -15 , -14 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 169 > X:[ -14 , -13 ] Y:[ -9 , -8 ]
Found Entropy: 0
\forall 170 > X:[-14, -13] Y:[-8, -7]
Found Entropy: 0
\langle \text{Window}: 171 > X:[-14, -13] Y:[-7, -6]
Found Entropy: 0
\forall X: [-14, -13] Y: [-6, -5]
Found Entropy: 0
<Window: 173 > X:[ -14 , -13 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 174 \rangle X: [-14, -13] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 175 \rangle X: [-14, -13] Y: [-3, -2]
Found Entropy: 0
\forall \text{Window: } 176 > X:[-14, -13] Y:[-2, -1]
Found Entropy: 0
\langle \text{Window}: 177 > X:[-14, -13] Y:[-1, 0]
Found Entropy: 0
\langle \text{Window: } 178 \rangle X:[-14, -13] Y:[0, 1]
Found Entropy: 0
\langle \text{Window: } 179 \rangle X:[-14, -13] Y:[1, 2]
Found Entropy: 0
\langle \text{Window}: 180 \rangle X: [-14, -13] Y: [2, 3]
Found Entropy: 0
<Window: 181 > X:[ -14 , -13 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 182 > X:[ -14 , -13 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 183 > X:[ -13 , -12 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 184 > X:[ -13 , -12 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window}: 185 \rangle X: [-13, -12] Y: [-7, -6]
Found Entropy: 0
<Window: 186 > X:[ -13 , -12 ] Y:[ -6 , -5 ]
Found Entropy: 0
```

```
\forall Window: 187 > X:[ -13 , -12 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window: } 188 \rangle \ \text{X:[} -13 , -12 \ ] \ \text{Y:[} -4 , -3 \ ]
Found Entropy: 0
\{Window: 189 > X:[-13, -12] Y:[-3, -2]
Found Entropy: 0
\langle \text{Window}: 190 \rangle X: [-13, -12] Y: [-2, -1]
Found Entropy: 0
\{Window: 191 > X:[ -13 , -12 ] Y:[ -1 , 0 ]
Found Entropy: 0
\langle \text{Window}: 192 \rangle X: [-13, -12] Y: [0, 1]
Found Entropy: 0
<Window: 193 > X:[ -13 , -12 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window: } 194 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} 2 \ , 3 \ ]
Found Entropy: 0
\langle \text{Window: } 195 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} 3 \ , 4 \ ]
Found Entropy: 0
\forall 196 > X:[-13, -12] Y:[4, 5]
Found Entropy: 0
<Window: 197 > X:[ -12 , -11 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 198 > X:[ -12 , -11 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window: 199} \rangle X: [-12, -11] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 200 \rangle X: [-12, -11] Y: [-6, -5]
Found Entropy: 0
\forall X:[-12, -11] Y:[-5, -4]
Found Entropy: 0
\langle \text{Window}: 202 \rangle X: [-12, -11] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 203 \rangle X: [-12, -11] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 204 \rangle X: [-12, -11] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 205 \rangle X: [-12, -11] Y: [-1, 0]
Found Entropy: 0
<Window: 206 > X:[ -12 , -11 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 207 > X:[ -12 , -11 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window: } 208 \rangle \ \text{X:[} -12 \ , -11 \ ] \ \text{Y:[} 2 \ , 3 \ ]
Found Entropy: 0
\langle \text{Window: } 209 \rangle \ X:[ -12 , -11 ] \ Y:[ 3 , 4 ]
Found Entropy: 0
\forall X:[-12, -11] Y:[4, 5]
Found Entropy: 0
```

```
\langle Window: 211 \rangle X:[-11, -10] Y:[-9, -8]
Found Entropy: 0
\langle \text{Window}: 212 \rangle X: [-11, -10] Y: [-8, -7]
Found Entropy: 0
\{Window: 213 > X:[-11, -10] Y:[-7, -6]
Found Entropy: 0
<Window: 214 > X:[ -11 , -10 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 215 \rangle X: [-11, -10] Y: [-5, -4]
Found Entropy: 0
\forall Window: 216 > X:[ -11 , -10 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 217 \rangle X: [-11, -10] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 218 \rangle X: [-11, -10] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window: } 219 \rangle X:[-11, -10] Y:[-1, 0]
Found Entropy: 0
<Window: 220 > X:[ -11 , -10 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 221 > X:[ -11 , -10 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 222 > X:[ -11 , -10 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 223 > X:[ -11 , -10 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window}: 224 \rangle X: [-11, -10] Y: [4, 5]
Found Entropy: 0
\langle \text{Window}: 225 \rangle X:[-10, -9] Y:[-9, -8]
Found Entropy: 0
\langle \text{Window}: 226 \rangle X:[-10, -9] Y:[-8, -7]
Found Entropy: 0
\langle \text{Window: } 227 \rangle \text{ X:[} -10 , -9 ] \text{ Y:[} -7 , -6 ]
Found Entropy: 0
<Window: 228 > X:[ -10 , -9 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 229 > X:[ -10 , -9 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 230 \rangle X: [-10, -9] Y: [-4, -3]
Found Entropy: 0
\forall X:[-10, -9] Y:[-3, -2]
Found Entropy: 0
<Window: 232 > X:[ -10 , -9 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 233 > X:[ -10 , -9 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 234 > X:[ -10 , -9 ] Y:[ 0 , 1 ]
Found Entropy: 0
```

```
<Window: 235 > X:[ -10 , -9 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 236 > X:[ -10 , -9 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 237 > X:[ -10 , -9 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 238 > X:[ -10 , -9 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 239 \rangle X: [-9, -8] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window: } 240 \rangle \text{ X:[} -9 , -8 ] \text{ Y:[} -8 , -7 ]
Found Entropy: 0
\langle \text{Window: } 241 \rangle \ \text{X:[} -9 \ , -8 \ ] \ \text{Y:[} -7 \ , -6 \ ]
Found Entropy: 0
\langle \text{Window: } 242 \rangle \ \text{X:[} -9 \ , -8 \ ] \ \text{Y:[} -6 \ , -5 \ ]
Found Entropy: 0
\langle \text{Window}: 243 \rangle X: [-9, -8] Y: [-5, -4]
Found Entropy: 0
<Window: 244 > X:[-9, -8] Y:[-4, -3]
Found Entropy: 0
\langle \text{Window}: 245 \rangle X: [-9, -8] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 246 \rangle X: [-9, -8] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window: } 247 \rangle \text{ X:[} -9 , -8 ] \text{ Y:[} -1 , 0 ]
Found Entropy: 0
<Window: 248 > X:[ -9 , -8 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 249 > X:[ -9 , -8 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window}: 250 \rangle X: [-9, -8] Y: [2, 3]
Found Entropy: 0
<Window: 251 > X:[ -9 , -8 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 252 > X:[ -9 , -8 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 253 \rangle X: [-8, -7] Y: [-9, -8]
Found Entropy: 0
\{Window: 254 > X:[-8,-7] Y:[-8,-7]
Found Entropy: 0
<Window: 255 > X:[ -8 , -7 ] Y:[ -7 , -6 ]
Found Entropy: 0
\langle \text{Window}: 256 \rangle X: [-8, -7] Y: [-6, -5]
Found Entropy: 0
<Window: 257 > X:[ -8 , -7 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 258 > X:[ -8 , -7 ] Y:[ -4 , -3 ]
Found Entropy: 0
```

```
\langle \text{Window}: 259 \rangle X: [-8, -7] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 260 \rangle X: [-8, -7] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 261 \rangle X: [-8, -7] Y: [-1, 0]
Found Entropy: 0
\langle \text{Window}: 262 \rangle X: [-8, -7] Y: [0, 1]
Found Entropy: 0
<Window: 263 > X:[ -8 , -7 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle Window: 264 \rangle X: [-8, -7] Y: [2, 3]
Found Entropy: 0
<Window: 265 > X:[ -8 , -7 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 266 > X:[ -8 , -7 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 267 \rangle \text{ X:[} -7 , -6 ] \text{ Y:[} -9 , -8 ]
Found Entropy: 0
<Window: 268 > X:[ -7 , -6 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window}: 269 \rangle X: [-7, -6] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 270 \rangle X: [-7, -6] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 271 > X:[-7,-6] Y:[-5,-4]
Found Entropy: 0
\langle \text{Window}: 272 \rangle X:[-7,-6] Y:[-4,-3]
Found Entropy: 0
\langle \text{Window}: 273 \rangle X: [-7, -6] Y: [-3, -2]
Found Entropy: 0
\forall x = 1 
Found Entropy: 0
<Window: 275 > X:[-7, -6] Y:[-1, 0]
Found Entropy: 0
\langle \text{Window}: 276 \rangle X: [-7, -6] Y: [0, 1]
Found Entropy: 0
\langle \text{Window}: 277 > X:[-7,-6] Y:[1,2]
Found Entropy: 0
\langle \text{Window}: 278 \rangle X: [-7, -6] Y: [2, 3]
Found Entropy: 0
<Window: 279 > X:[-7, -6] Y:[3, 4]
Found Entropy: 0
<Window: 280 > X:[ -7 , -6 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 281 > X:[-6,-5] Y:[-9,-8]
Found Entropy: 0
<Window: 282 > X:[ -6 , -5 ] Y:[ -8 , -7 ]
Found Entropy: 0
```

```
\langle \text{Window: 283} \rangle X: [-6, -5] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window: } 284 \rangle \text{ X:} [ -6 , -5 ] \text{ Y:} [ -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 285 \rangle X: [-6, -5] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 286 \rangle X: [-6, -5] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 287 \rangle X: [-6, -5] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 288 \rangle X: [-6, -5] Y: [-2, -1]
Found Entropy: 0
<Window: 289 > X:[ -6 , -5 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 290 > X:[ -6 , -5 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 291 > X:[ -6 , -5 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 292 > X:[ -6 , -5 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 293 > X:[ -6 , -5 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window}: 294 \rangle X: [-6, -5] Y: [4, 5]
Found Entropy: 0
\langle \text{Window}: 295 \rangle X: [-5, -4] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 296 \rangle X: [-5, -4] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window: } 297 \rangle X:[-5, -4] Y:[-7, -6]
Found Entropy: 0
\langle \text{Window: } 298 \rangle \ \text{X:[} -5 \ , -4 \ ] \ \text{Y:[} -6 \ , -5 \ ]
Found Entropy: 0
\langle \text{Window: } 299 \rangle X:[-5, -4] Y:[-5, -4]
Found Entropy: 0
\langle \text{Window}: 300 \rangle X: [-5, -4] Y: [-4, -3]
Found Entropy: 0
\{Window: 301 > X: [-5, -4] Y: [-3, -2] \}
Found Entropy: 0
\{Window: 302 > X: [ -5 , -4 ] Y: [ -2 , -1 ] 
Found Entropy: 0
<Window: 303 > X:[ -5 , -4 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 304 > X:[ -5 , -4 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 305 > X:[ -5 , -4 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 306 > X:[ -5 , -4 ] Y:[ 2 , 3 ]
Found Entropy: 0
```

```
<Window: 307 > X:[ -5 , -4 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 308 > X:[ -5 , -4 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 309 \rangle X: [-4, -3] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 310 \rangle X: [-4, -3] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 311 \rangle X: [-4, -3] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 312 \rangle X: [-4, -3] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 313 \rangle X: [-4, -3] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 314 \rangle X: [-4, -3] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 315 \rangle X: [-4, -3] Y: [-3, -2]
Found Entropy: 0
<Window: 316 > X:[ -4 , -3 ] Y:[ -2 , -1 ]
Found Entropy: 0
\langle \text{Window}: 317 \rangle X: [-4, -3] Y: [-1, 0]
Found Entropy: 0
<Window: 318 > X:[ -4 , -3 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 319 \rangle X: [-4, -3] Y: [1, 2]
Found Entropy: 0
\langle \text{Window}: 320 \rangle X: [-4, -3] Y: [2, 3]
Found Entropy: 0
<Window: 321 > X:[ -4 , -3 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window}: 322 \rangle X: [-4, -3] Y: [4, 5]
Found Entropy: 0
\langle \text{Window}: 323 \rangle X: [-3, -2] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 324 \rangle X: [-3, -2] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 325 \rangle X: [-3, -2] Y: [-7, -6]
Found Entropy: 0
\{Window: 326 > X:[-3,-2] Y:[-6,-5]
Found Entropy: 0
<Window: 327 > X:[-3, -2] Y:[-5, -4]
Found Entropy: 0
\langle \text{Window}: 328 \rangle X: [-3, -2] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 329 \rangle X:[-3,-2] Y:[-3,-2]
Found Entropy: 0
<Window: 330 > X:[ -3 , -2 ] Y:[ -2 , -1 ]
Found Entropy: 0
```

```
<Window: 331 > X:[ -3 , -2 ] Y:[ -1 , 0 ]
Found Entropy: 0
\langle \text{Window}: 332 \rangle X: [-3, -2] Y: [0, 1]
Found Entropy: 0
\langle \text{Window}: 333 \rangle X: [-3, -2] Y: [1, 2]
Found Entropy: 0
\langle \text{Window}: 334 \rangle X: [-3, -2] Y: [2, 3]
Found Entropy: 0
<Window: 335 > X:[ -3 , -2 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 336 > X:[ -3 , -2 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 337 \rangle \text{ X:} [ -2 , -1 ] \text{ Y:} [ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 338 \rangle X: [-2, -1] Y: [-8, -7]
Found Entropy: 0
<Window: 339 > X:[ -2 , -1 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 340 > X:[ -2 , -1 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 341 \rangle X: [-2, -1] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 342 \rangle X: [-2, -1] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window: } 343 \rangle \ \text{X:[} -2 \ , -1 \ ] \ \text{Y:[} -3 \ , -2 \ ]
Found Entropy: 0
\forall Window: 344 > X:[ -2 , -1 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 345 > X:[ -2 , -1 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 346 > X:[ -2 , -1 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 347 \rangle X:[-2,-1] Y:[1,2]
Found Entropy: 0
\langle \text{Window}: 348 \rangle X: [-2, -1] Y: [2, 3]
Found Entropy: 0
\langle \text{Window}: 349 \rangle X: [-2, -1] Y: [3, 4]
Found Entropy: 0
\langle \text{Window}: 350 \rangle X: [-2, -1] Y: [4, 5]
Found Entropy: 0
<Window: 351 > X:[ -1 , 0 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 352 \rangle X: [-1, 0] Y: [-8, -7]
Found Entropy: 0
<Window: 353 > X:[ -1 , 0 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 354 > X:[ -1 , 0 ] Y:[ -6 , -5 ]
Found Entropy: 0
```

```
<Window: 355 > X:[-1, 0] Y:[-5, -4]
Found Entropy: 0
<Window: 356 > X:[-1, 0] Y:[-4, -3]
Found Entropy: 0
<Window: 357 > X:[-1, 0] Y:[-3, -2]
Found Entropy: 0
\langle \text{Window}: 358 \rangle X: [-1, 0] Y: [-2, -1]
Found Entropy: 0
<Window: 359 > X:[ -1 , 0 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 360 > X:[ -1 , 0 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 361 > X:[ -1 , 0 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 362 > X:[ -1 , 0 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 363 > X:[ -1 , 0 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 364 > X:[-1, 0] Y:[4, 5]
Found Entropy: 0
<Window: 365 > X:[ 0 , 1 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 366 > X:[ 0 , 1 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 367 > X:[0,1] Y:[-7,-6]
Found Entropy: 0
<Window: 368 > X:[ 0 , 1 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 369 > X:[ 0 , 1 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 370 > X:[ 0 , 1 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 371 \rangle X:[0,1] Y:[-3,-2]
Found Entropy: 0
\langle \text{Window}: 372 \rangle X: [0, 1] Y: [-2, -1]
Found Entropy: 0
<Window: 373 > X:[0,1] Y:[-1,0]
Found Entropy: 0
<Window: 374 > X:[0,1] Y:[0,1]
Found Entropy: 0
<Window: 375 > X:[0, 1] Y:[1, 2]
Found Entropy: 0
<Window: 376 > X:[ 0 , 1 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 377 > X:[0, 1] Y:[3, 4]
Found Entropy: 0
<Window: 378 > X:[ 0 , 1 ] Y:[ 4 , 5 ]
Found Entropy: 0
```

```
\langle \text{Window}: 379 \rangle X:[1,2] Y:[-9,-8]
Found Entropy: 0
<Window: 380 > X:[1,2] Y:[-8,-7]
Found Entropy: 0
\{\text{Window: } 381 > X:[1,2] Y:[-7,-6]
Found Entropy: 0
\{\text{Window: } 382 > X:[1,2] Y:[-6,-5]
Found Entropy: 0
\langle \text{Window}: 383 \rangle X: [1, 2] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 384 \rangle X: [1, 2] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 385 \rangle X: [1, 2] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 386 \rangle X: [1, 2] Y: [-2, -1]
Found Entropy: 0
<Window: 387 > X:[1, 2] Y:[-1, 0]
Found Entropy: 0
<Window: 388 > X:[ 1 , 2 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 389 > X:[ 1 , 2 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 390 > X:[ 1 , 2 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 391 > X:[ 1 , 2 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window}: 392 \rangle X:[1,2] Y:[4,5]
Found Entropy: 0
\langle \text{Window}: 393 \rangle X: [2, 3] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 394 \rangle X: [2, 3] Y: [-8, -7]
Found Entropy: 0
<Window: 395 > X:[ 2 , 3 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 396 > X:[ 2 , 3 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 397 \rangle X: [2, 3] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 398 \rangle X: [2, 3] Y: [-4, -3]
Found Entropy: 0
<Window: 399 > X:[ 2 , 3 ] Y:[ -3 , -2 ]
Found Entropy: 0
\{\text{Window: } 400 > X: [2, 3] Y: [-2, -1]
Found Entropy: 0
<Window: 401 > X:[2,3] Y:[-1,0]
Found Entropy: 0
<Window: 402 > X:[2,3]Y:[0,1]
Found Entropy: 0
```

```
<Window: 403 > X:[ 2 , 3 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 404 > X:[2,3] Y:[2,3]
Found Entropy: 0
<Window: 405 > X:[ 2 , 3 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 406 > X:[ 2 , 3 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 407 > X:[3, 4] Y:[-9, -8]
Found Entropy: 0
<Window: 408 > X:[3, 4] Y:[-8, -7]
Found Entropy: 0
<Window: 409 > X:[3,4] Y:[-7,-6]
Found Entropy: 0
<Window: 410 > X:[ 3 , 4 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 411 > X:[ 3 , 4 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 412 > X:[3, 4] Y:[-4, -3]
Found Entropy: 0
<Window: 413 > X:[3, 4] Y:[-3, -2]
Found Entropy: 0
\langle \text{Window}: 414 \rangle X:[3,4] Y:[-2,-1]
Found Entropy: 0
\langle \text{Window}: 415 \rangle X:[3,4] Y:[-1,0]
Found Entropy: 0
<Window: 416 > X:[ 3 , 4 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 417 > X:[ 3 , 4 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 418 > X:[3, 4] Y:[2, 3]
Found Entropy: 0
<Window: 419 > X:[3, 4] Y:[3, 4]
Found Entropy: 0
<Window: 420 > X:[ 3 , 4 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 421 \rangle X: [4, 5] Y: [-9, -8]
Found Entropy: 0
<Window: 422 > X:[ 4 , 5 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 423 > X:[4,5] Y:[-7,-6]
Found Entropy: 0
<Window: 424 > X:[ 4 , 5 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 425 > X:[ 4 , 5 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 426 > X:[ 4 , 5 ] Y:[ -4 , -3 ]
Found Entropy: 0
```

```
\{\text{Window: } 427 > X:[4,5] Y:[-3,-2]
Found Entropy: 0
\{\text{Window: } 428 > X: [4, 5] Y: [-2, -1]
Found Entropy: 0
<Window: 429 > X:[4,5] Y:[-1,0]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 430 > X:[ 4 , 5 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 431 > X:[ 4 , 5 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 432 > X:[ 4 , 5 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 433 > X:[4,5] Y:[3,4]
Found Entropy: 0
<Window: 434 > X:[ 4 , 5 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 435 > X:[5,6] Y:[-9,-8]
Found Entropy: 0
<Window: 436 > X:[ 5 , 6 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 437 > X:[5,6] Y:[-7,-6]
Found Entropy: 0
<Window: 438 > X:[5,6] Y:[-6,-5]
Found Entropy: 0
<Window: 439 > X:[5,6] Y:[-5,-4]
Found Entropy: 0
<Window: 440 > X:[5,6] Y:[-4,-3]
Found Entropy: 0
<Window: 441 > X:[5, 6] Y:[-3, -2]
Found Entropy: 0
\{\text{Window: } 442 > X: [5, 6] Y: [-2, -1]
Found Entropy: 0
<Window: 443 > X:[5,6] Y:[-1,0]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 1.0986122886681096
<Window: 444 > X:[5,6] Y:[0,1]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 445 > X:[ 5 , 6 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 446 > X:[5,6] Y:[2,3]
Found Entropy: 0
<Window: 447 > X:[5,6] Y:[3,4]
Found Entropy: 0
```

```
<Window: 448 > X:[5,6] Y:[4,5]
Found Entropy: 0
<Window: 449 > X:[ 6 , 7 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 450 > X:[6,7] Y:[-8,-7]
Found Entropy: 0
<Window: 451 > X:[6,7] Y:[-7,-6]
Found Entropy: 0
\{\text{Window: } 452 > X: [6, 7] Y: [-6, -5]
Found Entropy: 0
<Window: 453 > X:[6,7] Y:[-5,-4]
Found Entropy: 0
<Window: 454 > X:[6,7] Y:[-4,-3]
Found Entropy: 0
<Window: 455 > X:[ 6 , 7 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 456 > X:[ 6 , 7 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 457 > X:[6,7] Y:[-1,0]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.6365141682948128
<Window: 458 > X:[ 6 , 7 ] Y:[ 0 , 1 ]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 1.0986122886681096
<Window: 459 > X:[ 6 , 7 ] Y:[ 1 , 2 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 460 > X:[ 6 , 7 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 461 > X:[6,7] Y:[3,4]
Found Entropy: 0
<Window: 462 > X:[ 6 , 7 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 463 > X:[ 7 , 8 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 464 > X:[ 7 , 8 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 465 > X:[7,8] Y:[-7,-6]
Found Entropy: 0
<Window: 466 > X:[ 7 , 8 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 467 > X:[ 7 , 8 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 468 > X:[ 7 , 8 ] Y:[ -4 , -3 ]
```

```
Found Entropy: 0
<Window: 469 > X:[7,8] Y:[-3,-2]
Found Entropy: 0
<Window: 470 > X:[7,8] Y:[-2,-1]
Found a sample of class: 0
Found Entropy: 0.0
\{\text{Window: } 471 > X:[7,8] Y:[-1,0]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
\{\text{Window: } 472 > \text{X:} [7, 8] \text{ Y:} [0, 1]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.5623351446188083
<Window: 473 > X:[7,8] Y:[1,2]
Found Entropy: 0
<Window: 474 > X:[7,8] Y:[2,3]
Found Entropy: 0
<Window: 475 > X:[7,8] Y:[3,4]
Found Entropy: 0
<Window: 476 > X:[ 7 , 8 ] Y:[ 4 , 5 ]
Found Entropy: 0
\{\text{Window: } 477 > X:[8,9] Y:[-9,-8]
Found Entropy: 0
<Window: 478 > X:[8,9] Y:[-8,-7]
Found Entropy: 0
<Window: 479 > X:[8,9] Y:[-7,-6]
Found Entropy: 0
<Window: 480 > X:[8,9] Y:[-6,-5]
Found Entropy: 0
<Window: 481 > X:[8,9] Y:[-5,-4]
Found Entropy: 0
\{\text{Window: } 482 > X:[8,9] Y:[-4,-3]
Found Entropy: 0
\{\text{Window: } 483 > X: [8, 9] Y: [-3, -2]
Found Entropy: 0
\{\text{Window: } 484 > X: [8, 9] Y: [-2, -1]
Found Entropy: 0
<Window: 485 > X:[8, 9] Y:[-1, 0]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.6365141682948128
<Window: 486 > X:[ 8 , 9 ] Y:[ 0 , 1 ]
Found a sample of class: 1
Found a sample of class: 1
```

```
Found Entropy: 0.0
<Window: 487 > X:[8, 9] Y:[1, 2]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 488 > X:[ 8 , 9 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 489 > X:[ 8 , 9 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 490 > X:[8, 9] Y:[4, 5]
Found Entropy: 0
<Window: 491 > X:[9, 10] Y:[-9, -8]
Found Entropy: 0
<Window: 492 > X:[9, 10] Y:[-8, -7]
Found Entropy: 0
<Window: 493 > X:[ 9 , 10 ] Y:[ -7 , -6 ]
Found Entropy: 0
\{\text{Window: } 494 > X:[9, 10] Y:[-6, -5]
Found Entropy: 0
<Window: 495 > X:[9, 10] Y:[-5, -4]
Found Entropy: 0
<Window: 496 > X:[9, 10] Y:[-4, -3]
Found Entropy: 0
<Window: 497 > X:[ 9 , 10 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 498 > X:[9, 10] Y:[-2, -1]
Found Entropy: 0
\{\text{Window: } 499 > \text{X:} [9, 10] \text{ Y:} [-1, 0]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 500 > X:[ 9 , 10 ] Y:[ 0 , 1 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 501 > X:[ 9 , 10 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 502 > X:[ 9 , 10 ] Y:[ 2 , 3 ]
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.6931471805599453
<Window: 503 > X:[ 9 , 10 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 504 > X:[9, 10] Y:[4, 5]
Found Entropy: 0
<Window: 505 > X:[ 10 , 11 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 506 > X:[ 10 , 11 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 507 > X:[ 10 , 11 ] Y:[ -7 , -6 ]
Found Entropy: 0
```

```
<Window: 508 > X:[ 10 , 11 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 509 \rangle \text{ X:} [ 10 , 11 ] \text{ Y:} [ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 510 \rangle X: [10, 11] Y: [-4, -3]
Found Entropy: 0
<Window: 511 > X:[ 10 , 11 ] Y:[ -3 , -2 ]
Found Entropy: 0
\{Window: 512 > X:[10, 11] Y:[-2, -1]
Found Entropy: 0
<Window: 513 > X:[ 10 , 11 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 514 > X:[ 10 , 11 ] Y:[ 0 , 1 ]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.5623351446188083
<Window: 515 > X:[ 10 , 11 ] Y:[ 1 , 2 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 516 > X:[ 10 , 11 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 517 > X:[ 10 , 11 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 518 > X:[ 10 , 11 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 519 > X:[ 11 , 12 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 520 > X:[ 11 , 12 ] Y:[ -8 , -7 ]
Found Entropy: 0
\forall X:[11, 12] Y:[-7, -6]
Found Entropy: 0
<Window: 522 > X:[ 11 , 12 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 523 > X:[ 11 , 12 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 524 \rangle X: [11, 12] Y: [-4, -3]
Found Entropy: 0
<Window: 525 > X:[ 11 , 12 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 526 > X:[ 11 , 12 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 527 > X:[ 11 , 12 ] Y:[ -1 , 0 ]
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.6931471805599453
<Window: 528 > X:[ 11 , 12 ] Y:[ 0 , 1 ]
```

```
Found a sample of class: 0
Found Entropy: 0.0
<Window: 529 > X:[ 11 , 12 ] Y:[ 1 , 2 ]
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.6931471805599453
<Window: 530 > X:[ 11 , 12 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 531 > X:[ 11 , 12 ] Y:[ 3 , 4 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 532 > X:[ 11 , 12 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: 533} \rangle X: [12, 13] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window: } 534 \rangle \text{ X:[ } 12 \text{ , } 13 \text{ ] } \text{ Y:[ } -8 \text{ , } -7 \text{ ]}
Found Entropy: 0
<Window: 535 > X:[ 12 , 13 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 536 > X:[ 12 , 13 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 537 \rangle \text{ X:[ } 12 \text{ , } 13 \text{ ] } \text{ Y:[ } -5 \text{ , } -4 \text{ ]}
Found Entropy: 0
\forall Window: 538 > X:[ 12 , 13 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: 539} \rangle X: [12, 13] Y: [-3, -2]
Found Entropy: 0
<Window: 540 > X:[ 12 , 13 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 541 > X:[12, 13] Y:[-1, 0]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 542 > X:[ 12 , 13 ] Y:[ 0 , 1 ]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.6365141682948128
<Window: 543 > X:[ 12 , 13 ] Y:[ 1 , 2 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 544 > X:[ 12 , 13 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 545 > X:[ 12 , 13 ] Y:[ 3 , 4 ]
Found a sample of class: 1
```

```
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 546 > X:[ 12 , 13 ] Y:[ 4 , 5 ]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.6365141682948128
<Window: 547 > X:[ 13 , 14 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window: 548} \rangle \text{ X:[ 13 , 14 ] Y:[ -8 , -7 ]}
Found Entropy: 0
<Window: 549 > X:[ 13 , 14 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 550 > X:[ 13 , 14 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 551 \rangle \text{ X:[ } 13 \text{ , } 14 \text{ ] } \text{ Y:[ } -5 \text{ , } -4 \text{ ]}
Found Entropy: 0
<Window: 552 > X:[ 13 , 14 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 553 > X:[ 13 , 14 ] Y:[ -3 , -2 ]
Found Entropy: 0
\{Window: 554 > X:[13,14]Y:[-2,-1]
Found Entropy: 0
\langle \text{Window}: 555 \rangle X: [13, 14] Y: [-1, 0]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 556 > X:[ 13 , 14 ] Y:[ 0 , 1 ]
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.6931471805599453
<Window: 557 > X:[ 13 , 14 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 558 > X:[ 13 , 14 ] Y:[ 2 , 3 ]
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.6365141682948128
<Window: 559 > X:[ 13 , 14 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 560 > X:[ 13 , 14 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 561 > X:[ 14 , 15 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 562 \rangle X: [14, 15] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 563 \rangle X: [14, 15] Y: [-7, -6]
```

```
Found Entropy: 0
<Window: 564 > X:[14, 15] Y:[-6, -5]
Found Entropy: 0
<Window: 565 > X:[ 14 , 15 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 566 > X:[ 14 , 15 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 567 \rangle X: [14, 15] Y: [-3, -2]
Found Entropy: 0
<Window: 568 > X:[ 14 , 15 ] Y:[ -2 , -1 ]
Found Entropy: 0
\langle \text{Window}: 569 \rangle X: [14, 15] Y: [-1, 0]
Found Entropy: 0
<Window: 570 > X:[ 14 , 15 ] Y:[ 0 , 1 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 571 > X:[ 14 , 15 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 572 > X:[ 14 , 15 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 573 > X:[ 14 , 15 ] Y:[ 3 , 4 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 574 > X:[ 14 , 15 ] Y:[ 4 , 5 ]
Found Entropy: 0
\forall x \in X : [15, 16] Y : [-9, -8]
Found Entropy: 0
<Window: 576 > X:[ 15 , 16 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 577 > X:[ 15 , 16 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 578 > X:[ 15 , 16 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 579 \rangle X: [15, 16] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window: 580} \rangle \text{ X:} [15, 16] \text{ Y:} [-4, -3]
Found Entropy: 0
\langle \text{Window: 581} \rangle \text{ X:[15,16] Y:[-3,-2]}
Found Entropy: 0
\{Window: 582 > X: [15, 16] Y: [-2, -1] 
Found Entropy: 0
<Window: 583 > X:[ 15 , 16 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 584 > X:[ 15 , 16 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 585 > X:[ 15 , 16 ] Y:[ 1 , 2 ]
Found a sample of class: 1
Found Entropy: 0.0
```

```
<Window: 586 > X:[ 15 , 16 ] Y:[ 2 , 3 ]
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 587 > X:[ 15 , 16 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 588 > X:[ 15 , 16 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 589 > X:[ 16 , 17 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 590 > X:[ 16 , 17 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window: 591} \rangle X: [16, 17] Y: [-7, -6]
Found Entropy: 0
<Window: 592 > X:[ 16 , 17 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 593 > X:[ 16 , 17 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 594 > X:[ 16 , 17 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 595 > X:[ 16 , 17 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 596 > X:[ 16 , 17 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 597 > X:[ 16 , 17 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 598 > X:[ 16 , 17 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 599 > X:[ 16 , 17 ] Y:[ 1 , 2 ]
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 600 > X:[ 16 , 17 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 601 > X:[ 16 , 17 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.6365141682948128
<Window: 602 > X:[ 16 , 17 ] Y:[ 4 , 5 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 603 > X:[ 17 , 18 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 604 > X:[ 17 , 18 ] Y:[ -8 , -7 ]
```

```
Found Entropy: 0
<Window: 605 > X:[ 17 , 18 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 606 > X:[ 17 , 18 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 607 > X:[ 17 , 18 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window: } 608 \rangle \ \text{X:} [ 17 , 18 ] \ \text{Y:} [ -4 , -3 ]
Found Entropy: 0
<Window: 609 > X:[ 17 , 18 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window: 610} \rangle X: [17, 18] Y: [-2, -1]
Found Entropy: 0
<Window: 611 > X:[ 17 , 18 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 612 > X:[ 17 , 18 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 613 > X:[ 17 , 18 ] Y:[ 1 , 2 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 614 > X:[ 17 , 18 ] Y:[ 2 , 3 ]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 1.0397207708399179
<Window: 615 > X:[ 17 , 18 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 616 > X:[ 17 , 18 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 617 \rangle \text{ X:} [ 18 , 19 ] \text{ Y:} [ -9 , -8 ]
Found Entropy: 0
<Window: 618 > X:[ 18 , 19 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window: 619} \rangle X: [18, 19] Y: [-7, -6]
Found Entropy: 0
\{\text{Window: }620 > X:[18,19] Y:[-6,-5]
Found Entropy: 0
<Window: 621 > X:[ 18 , 19 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window: } 622 \rangle \text{ X:} [ 18 , 19 ] \text{ Y:} [ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 623 \rangle X: [ 18 , 19 ] Y: [ -3 , -2 ]
Found Entropy: 0
<Window: 624 > X:[ 18 , 19 ] Y:[ -2 , -1 ]
Found Entropy: 0
```

```
<Window: 625 > X:[ 18 , 19 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 626 > X:[ 18 , 19 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 627 > X:[ 18 , 19 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 628 > X:[ 18 , 19 ] Y:[ 2 , 3 ]
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 629 > X:[ 18 , 19 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 1.0986122886681096
<Window: 630 > X:[ 18 , 19 ] Y:[ 4 , 5 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 631 > X:[ 19 , 20 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 632 > X:[ 19 , 20 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 633 > X:[ 19 , 20 ] Y:[ -7 , -6 ]
Found Entropy: 0
\{\text{Window: } 634 > X: [19, 20] Y: [-6, -5]
Found Entropy: 0
<Window: 635 > X:[ 19 , 20 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 636 > X:[ 19 , 20 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 637 > X:[ 19 , 20 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 638 > X:[ 19 , 20 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 639 > X:[ 19 , 20 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 640 > X:[ 19 , 20 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 641 > X:[ 19 , 20 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 642 > X:[ 19 , 20 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 643 > X:[ 19 , 20 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 644 > X:[ 19 , 20 ] Y:[ 4 , 5 ]
Found a sample of class: 0
```

```
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.6730116670092565
<Window: 645 > X:[ 20 , 21 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 646 > X:[ 20 , 21 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window: } 647 \rangle \text{ X:[ } 20 \text{ , } 21 \text{ ] } \text{ Y:[ } -7 \text{ , } -6 \text{ ]}
Found Entropy: 0
<Window: 648 > X:[ 20 , 21 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 649 > X:[ 20 , 21 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 650 > X:[ 20 , 21 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 651 \rangle \ \text{X:} [ 20 , 21 ] \ \text{Y:} [ -3 , -2 ]
Found Entropy: 0
\langle \text{Window}: 652 \rangle X: [20, 21] Y: [-2, -1]
Found Entropy: 0
<Window: 653 > X:[ 20 , 21 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 654 > X:[ 20 , 21 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 655 > X:[ 20 , 21 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 656 > X:[ 20 , 21 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 657 > X:[ 20 , 21 ] Y:[ 3 , 4 ]
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 658 > X:[ 20 , 21 ] Y:[ 4 , 5 ]
Found a sample of class: 0
Found Entropy: 0.0
Total Count: 658
Expected Count: 658
OKAY: True
----Done--- 26.82116450204838
Done!
-26 21 -9 5
You Can use this matrix now.
X_{min} = -26
X_max= 21
Y_{min} = -9
Y_{max} = 5
And the Matrix Shape: 47 * 14
```

```
\{\text{Window: 1 > X:[-26,-25] Y:[-9,-8]}
Found Entropy: 0
\langle \text{Window}: 2 \rangle X: [-26, -25] Y: [-8, -7]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
\langle \text{Window}: 3 \rangle X: [-26, -25] Y: [-7, -6]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 1.0397207708399179
\{\text{Window: 4} > \text{X:[-26,-25]} \text{Y:[-6,-5]}
Found Entropy: 0
\langle \text{Window}: 5 \rangle X: [-26, -25] Y: [-5, -4]
Found Entropy: 0
<Window: 6 > X:[ -26 , -25 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 7 > X:[ -26 , -25 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window}: 8 \rangle X: [-26, -25] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window: 9 > X:[-26,-25] Y:[-1,0]}
Found Entropy: 0
\langle \text{Window}: 10 \rangle X: [-26, -25] Y: [0, 1]
Found Entropy: 0
\langle \text{Window}: 11 \rangle X: [-26, -25] Y: [1, 2]
Found Entropy: 0
<Window: 12 > X:[ -26 , -25 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 13 > X:[ -26 , -25 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 14 > X:[ -26 , -25 ] Y:[ 4 , 5 ]
Found Entropy: 0
\{Window: 15 > X: [ -25 , -24 ] Y: [ -9 , -8 ]
Found Entropy: 0
<Window: 16 > X:[ -25 , -24 ] Y:[ -8 , -7 ]
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 0.6931471805599453
\forall X: [-25, -24] Y: [-7, -6]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.6931471805599453
\langle \text{Window}: 18 \rangle X: [-25, -24] Y: [-6, -5]
Found a sample of class: 0
```

```
Found Entropy: 0.0
\forall 19 > X:[-25, -24] Y:[-5, -4]
Found Entropy: 0
\{Window: 20 > X:[ -25 , -24 ] Y:[ -4 , -3 ]
Found Entropy: 0
\forall X: [-25, -24] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 22 \rangle X: [-25, -24] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 23 \rangle X: [-25, -24] Y: [-1, 0]
Found Entropy: 0
<Window: 24 > X:[ -25 , -24 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 25 > X:[ -25 , -24 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 26 > X:[ -25 , -24 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 27 > X:[ -25 , -24 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 28 > X:[ -25 , -24 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 29 \rangle \text{ X: [ } -24 \text{ , } -23 \text{ ] } \text{ Y: [ } -9 \text{ , } -8 \text{ ]}
Found Entropy: 0
\{Window: 30 > X: [ -24 , -23 ] Y: [ -8 , -7 ]
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 0.6931471805599453
\langle \text{Window}: 31 \rangle X: [-24, -23] Y: [-7, -6]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.5623351446188083
\{\text{Window: } 32 > \text{X:} [-24, -23] \text{ Y:} [-6, -5] \}
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 33 \rangle X: [-24, -23] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 34 \rangle X: [-24, -23] Y: [-4, -3]
Found Entropy: 0
\forall Window: 35 > X:[ -24 , -23 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window}: 36 \rangle X: [-24, -23] Y: [-2, -1]
Found Entropy: 0
<Window: 37 > X:[ -24 , -23 ] Y:[ -1 , 0 ]
Found Entropy: 0
\langle \text{Window: } 38 \rangle \ \text{X:[} -24 \ , -23 \ ] \ \text{Y:[} 0 \ , 1 \ ]
Found Entropy: 0
```

```
\langle \text{Window: } 39 \rangle \text{ X:} [ -24 , -23 ] \text{ Y:} [ 1 , 2 ]
Found Entropy: 0
<Window: 40 > X:[ -24 , -23 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 41 > X:[-24, -23] Y:[3, 4]
Found Entropy: 0
\langle \text{Window}: 42 \rangle X: [-24, -23] Y: [4, 5]
Found Entropy: 0
<Window: 43 > X:[-23, -22] Y:[-9, -8]
Found Entropy: 0
\{\text{Window}: 44 > X: [-23, -22] Y: [-8, -7] \}
Found a sample of class: 2
Found Entropy: 0.0
\langle \text{Window}: 45 \rangle X: [-23, -22] Y: [-7, -6]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.6931471805599453
<Window: 46 > X:[-23, -22] Y:[-6, -5]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
\{Window: 47 > X: [ -23 , -22 ] Y: [ -5 , -4 ] 
Found Entropy: 0
\{\text{Window}: 48 > X: [-23, -22] Y: [-4, -3] \}
Found Entropy: 0
\langle \text{Window}: 49 \rangle X: [-23, -22] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 50 \rangle X: [-23, -22] Y: [-2, -1]
Found Entropy: 0
\{\text{Window: 51} > \text{X:[-23,-22]} \text{Y:[-1,0]}
Found Entropy: 0
\{\text{Window: } 52 > X:[-23, -22] Y:[0, 1]
Found Entropy: 0
\langle \text{Window: 53} \rangle \text{ X:[-23,-22] Y:[1,2]}
Found Entropy: 0
<Window: 54 > X:[ -23 , -22 ] Y:[ 2 , 3 ]
Found Entropy: 0
\langle \text{Window: } 55 \rangle \text{ X:} [-23, -22] \text{ Y:} [3, 4]
Found Entropy: 0
<Window: 56 > X:[ -23 , -22 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 57 \rangle X: [-22, -21] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 58 \rangle X: [-22, -21] Y: [-8, -7]
Found a sample of class: 1
Found a sample of class: 2
```

```
Found Entropy: 0.6931471805599453
\langle \text{Window}: 59 \rangle X: [-22, -21] Y: [-7, -6]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
<Window: 60 > X:[ -22 , -21 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 61 \rangle \ \text{X:} [ -22 , -21 ] \ \text{Y:} [ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 62 \rangle X: [-22, -21] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 63 \rangle X: [-22, -21] Y: [-3, -2]
Found Entropy: 0
\{\text{Window: } 64 > \text{X:} [-22, -21] \text{ Y:} [-2, -1] \}
Found Entropy: 0
<Window: 65 > X:[ -22 , -21 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 66 > X:[ -22 , -21 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 67 > X:[ -22 , -21 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window: } 68 \rangle \ \text{X:[} -22 , -21 \ ] \ \text{Y:[} 2 , 3 \ ]
Found Entropy: 0
\{\text{Window: 69} > \text{X:[-22,-21]} \text{Y:[3,4]}
Found Entropy: 0
\{\text{Window}: 70 > X: [-22, -21] Y: [4, 5]
Found Entropy: 0
\{\text{Window: 71} > \text{X:} [-21, -20] \text{ Y:} [-9, -8] \}
Found a sample of class: 1
Found Entropy: 0.0
\{\text{Window: 72} > \text{X:} [-21, -20] \text{ Y:} [-8, -7] \}
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 0.6365141682948128
<Window: 73 > X:[ -21 , -20 ] Y:[ -7 , -6 ]
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 1.0114042647073518
<Window: 74 > X:[ -21 , -20 ] Y:[ -6 , -5 ]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
\langle \text{Window}: 75 \rangle X: [-21, -20] Y: [-5, -4]
```

```
Found Entropy: 0
<Window: 76 > X:[ -21 , -20 ] Y:[ -4 , -3 ]
Found Entropy: 0
\{Window: 77 > X:[ -21 , -20 ] Y:[ -3 , -2 ]
Found Entropy: 0
\forall X: [-21, -20] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window: 79} \rangle \ \text{X:[-21,-20]} \ \text{Y:[-1,0]}
Found Entropy: 0
<Window: 80 > X:[ -21 , -20 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 81 > X:[ -21 , -20 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 82 > X:[ -21 , -20 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 83 > X:[ -21 , -20 ] Y:[ 3 , 4 ]
Found Entropy: 0
\{\text{Window: 84} > \text{X:} [-21, -20] \text{ Y:} [4, 5]
Found Entropy: 0
\langle \text{Window: } 85 \rangle \text{ X: } [-20, -19] \text{ Y: } [-9, -8]
Found Entropy: 0
\langle \text{Window: 86} \rangle \text{ X: [ -20 , -19 ] Y: [ -8 , -7 ]}
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window: } 87 \rangle \text{ X: } [-20, -19] \text{ Y: } [-7, -6]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.6931471805599453
\langle \text{Window: 88} \rangle \text{ X: [ -20 , -19 ] Y: [ -6 , -5 ]}
Found Entropy: 0
\langle \text{Window: 89} \rangle \text{ X: [ -20 , -19 ] Y: [ -5 , -4 ]}
Found Entropy: 0
\langle \text{Window: } 90 \rangle \text{ X: } [-20, -19] \text{ Y: } [-4, -3]
Found Entropy: 0
\{Window: 91 > X:[ -20 , -19 ] Y:[ -3 , -2 ]
Found Entropy: 0
\{Window: 92 > X:[ -20 , -19 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 93 > X:[ -20 , -19 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 94 > X:[ -20 , -19 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window: 95} \rangle X: [-20, -19] Y: [1, 2]
Found Entropy: 0
\forall 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.
Found Entropy: 0
```

```
<Window: 97 > X:[ -20 , -19 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window: 98} \rangle X: [-20, -19] Y: [4, 5]
Found Entropy: 0
\langle \text{Window: } 99 \rangle \ \text{X:} [ -19 , -18 ] \ \text{Y:} [ -9 , -8 ]
Found Entropy: 0
<Window: 100 > X:[ -19 , -18 ] Y:[ -8 , -7 ]
Found a sample of class: 2
Found Entropy: 0.0
\langle \text{Window}: 101 \rangle X: [-19, -18] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 102 \rangle X: [-19, -18] Y: [-6, -5]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 103 \rangle X: [-19, -18] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window: } 104 \rangle \text{ X:[} -19 , -18 ] \text{ Y:[} -4 , -3 ]
Found Entropy: 0
\{Window: 105 > X:[-19, -18] Y:[-3, -2]
Found Entropy: 0
\{Window: 106 \} X: [ -19 , -18 ] Y: [ -2 , -1 ]
Found Entropy: 0
\langle \text{Window: } 107 \rangle \text{ X:[} -19 , -18 ] \text{ Y:[} -1 , 0 ]
Found Entropy: 0
<Window: 108 > X:[ -19 , -18 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window: } 109 \rangle \ \text{X:[} -19 \ , -18 \ ] \ \text{Y:[} 1 \ , 2 \ ]
Found Entropy: 0
\langle \text{Window: } 110 \rangle \ \text{X:[} -19 \ , -18 \ ] \ \text{Y:[} 2 \ , 3 \ ]
Found Entropy: 0
\langle \text{Window: } 111 \rangle \ \text{X:[} -19 \ , -18 \ ] \ \text{Y:[} 3 \ , 4 \ ]
Found Entropy: 0
\langle \text{Window: } 112 \rangle \ \text{X:[} -19 \ , -18 \ ] \ \text{Y:[} 4 \ , 5 \ ]
Found Entropy: 0
<Window: 113 > X:[ -18 , -17 ] Y:[ -9 , -8 ]
Found Entropy: 0
\{Window: 114 > X:[-18, -17] Y:[-8, -7]
Found Entropy: 0
\{Window: 115 > X:[-18, -17] Y:[-7, -6]
Found Entropy: 0
<Window: 116 > X:[ -18 , -17 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 117 \rangle X: [-18, -17] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 118 \rangle X: [-18, -17] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 119 \rangle X: [-18, -17] Y: [-3, -2]
Found Entropy: 0
```

```
\forall \text{Window: } 120 > X:[-18, -17] Y:[-2, -1]
Found Entropy: 0
<Window: 121 > X:[ -18 , -17 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 122 > X:[ -18 , -17 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 123 > X:[ -18 , -17 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 124 > X:[ -18 , -17 ] Y:[ 2 , 3 ]
Found Entropy: 0
\langle \text{Window}: 125 \rangle X: [-18, -17] Y: [3, 4]
Found Entropy: 0
<Window: 126 > X:[ -18 , -17 ] Y:[ 4 , 5 ]
Found Entropy: 0
\forall x = 127 > x : [ -17 , -16 ] Y : [ -9 , -8 ]
Found Entropy: 0
\langle \text{Window: } 128 \rangle \text{ X:[} -17 , -16 ] \text{ Y:[} -8 , -7 ]
Found Entropy: 0
\forall X: [-17, -16] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 130 \rangle X: [-17, -16] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window: } 131 \rangle \ \text{X:[} -17 \ , -16 \ ] \ \text{Y:[} -5 \ , -4 \ ]
Found Entropy: 0
\langle \text{Window}: 132 \rangle X: [-17, -16] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window: } 133 \rangle \ \text{X:[} -17 \ , -16 \ ] \ \text{Y:[} -3 \ , -2 \ ]
Found Entropy: 0
\langle \text{Window: } 134 \rangle \text{ X: [} -17 \text{ , } -16 \text{ ] } \text{ Y: [} -2 \text{ , } -1 \text{ ]}
Found Entropy: 0
<Window: 135 > X:[ -17 , -16 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 136 > X:[ -17 , -16 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 137 > X:[ -17 , -16 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 138 > X:[ -17 , -16 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 139 > X:[ -17 , -16 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window: } 140 \rangle \ \text{X:[} -17 \ , -16 \ ] \ \text{Y:[} 4 \ , 5 \ ]
Found Entropy: 0
<Window: 141 > X:[ -16 , -15 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle Window: 142 \rangle X: [ -16 , -15 ] Y: [ -8 , -7 ]
Found Entropy: 0
<Window: 143 > X:[ -16 , -15 ] Y:[ -7 , -6 ]
Found Entropy: 0
```

```
\langle \text{Window}: 144 \rangle X: [-16, -15] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 145 \rangle X: [-16, -15] Y: [-5, -4]
Found Entropy: 0
\{Window: 146 > X:[-16, -15] Y:[-4, -3]
Found Entropy: 0
<Window: 147 > X:[ -16 , -15 ] Y:[ -3 , -2 ]
Found Entropy: 0
\{Window: 148 > X: [ -16 , -15 ] Y: [ -2 , -1 ] 
Found Entropy: 0
\langle \text{Window}: 149 \rangle X: [-16, -15] Y: [-1, 0]
Found Entropy: 0
<Window: 150 > X:[ -16 , -15 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window: } 151 \rangle \ \text{X:[} -16 \ , -15 \ ] \ \text{Y:[} 1 \ , 2 \ ]
Found Entropy: 0
\langle \text{Window: } 152 \rangle \ \text{X:[} -16 \ , -15 \ ] \ \text{Y:[} 2 \ , 3 \ ]
Found Entropy: 0
<Window: 153 > X:[ -16 , -15 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 154 > X:[ -16 , -15 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 155 > X:[ -15 , -14 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 156 > X:[ -15 , -14 ] Y:[ -8 , -7 ]
Found Entropy: 0
\forall Window: 157 > X:[ -15 , -14 ] Y:[ -7 , -6 ]
Found Entropy: 0
\langle \text{Window}: 158 \rangle X: [-15, -14] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 159 \rangle X: [-15, -14] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 160 \rangle X: [-15, -14] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 161 \rangle X: [-15, -14] Y: [-3, -2]
Found Entropy: 0
\{Window: 162 > X:[-15, -14] Y:[-2, -1] \}
Found Entropy: 0
<Window: 163 > X:[ -15 , -14 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 164 > X:[ -15 , -14 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 165 > X:[ -15 , -14 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 166 > X:[ -15 , -14 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 167 > X:[ -15 , -14 ] Y:[ 3 , 4 ]
Found Entropy: 0
```

```
\langle \text{Window}: 168 \rangle X: [-15, -14] Y: [4, 5]
Found Entropy: 0
\langle \text{Window: } 169 \rangle \text{ X:[} -14 , -13 ] \text{ Y:[} -9 , -8 ]
Found Entropy: 0
\{Window: 170 > X:[-14, -13] Y:[-8, -7]
Found Entropy: 0
\langle \text{Window}: 171 \rangle X: [-14, -13] Y: [-7, -6]
Found Entropy: 0
\{Window: 172 > X:[-14, -13] Y:[-6, -5]
Found Entropy: 0
\langle \text{Window}: 173 \rangle X: [-14, -13] Y: [-5, -4]
Found Entropy: 0
<Window: 174 > X:[ -14 , -13 ] Y:[ -4 , -3 ]
Found Entropy: 0
\forall \text{Window: } 175 > X:[-14, -13] Y:[-3, -2]
Found Entropy: 0
\forall \text{Window: } 176 > X:[-14, -13] Y:[-2, -1]
Found Entropy: 0
<Window: 177 > X:[ -14 , -13 ] Y:[ -1 , 0 ]
Found Entropy: 0
\langle \text{Window}: 178 \rangle X: [-14, -13] Y: [0, 1]
Found Entropy: 0
\langle \text{Window: } 179 \rangle \ X:[-14, -13] \ Y:[1, 2]
Found Entropy: 0
\langle \text{Window: } 180 \rangle \ \text{X:[} -14 \ , -13 \ ] \ \text{Y:[} 2 \ , 3 \ ]
Found Entropy: 0
\langle \text{Window: } 181 \rangle \ \text{X:[} -14 \ , -13 \ ] \ \text{Y:[} 3 \ , 4 \ ]
Found Entropy: 0
<Window: 182 > X:[ -14 , -13 ] Y:[ 4 , 5 ]
Found Entropy: 0
\forall \text{Window: } 183 > X:[-13, -12] Y:[-9, -8]
Found Entropy: 0
\langle \text{Window: } 184 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} -8 \ , -7 \ ]
Found Entropy: 0
\langle \text{Window}: 185 \rangle X: [-13, -12] Y: [-7, -6]
Found Entropy: 0
<Window: 186 > X:[ -13 , -12 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 187 > X:[ -13 , -12 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 188 > X:[ -13 , -12 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 189 > X:[ -13 , -12 ] Y:[ -3 , -2 ]
Found Entropy: 0
\forall 190 > X:[-13, -12] Y:[-2, -1]
Found Entropy: 0
<Window: 191 > X:[ -13 , -12 ] Y:[ -1 , 0 ]
Found Entropy: 0
```

```
\langle \text{Window: } 192 \rangle X:[-13, -12] Y:[0, 1]
Found Entropy: 0
\langle \text{Window: 193} \rangle X: [-13, -12] Y: [1, 2]
Found Entropy: 0
\{Window: 194 > X:[ -13 , -12 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 195 > X:[ -13 , -12 ] Y:[ 3 , 4 ]
Found Entropy: 0
\{Window: 196 > X:[-13, -12] Y:[4, 5]
Found Entropy: 0
\langle \text{Window}: 197 \rangle X: [-12, -11] Y: [-9, -8]
Found Entropy: 0
<Window: 198 > X:[ -12 , -11 ] Y:[ -8 , -7 ]
Found Entropy: 0
\forall 199 > X:[-12, -11] Y:[-7, -6]
Found Entropy: 0
\langle \text{Window}: 200 \rangle X: [-12, -11] Y: [-6, -5]
Found Entropy: 0
<Window: 201 > X:[ -12 , -11 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 202 \rangle X: [-12, -11] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 203 \rangle X: [-12, -11] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 204 \rangle X: [-12, -11] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 205 \rangle X:[-12, -11] Y:[-1, 0]
Found Entropy: 0
<Window: 206 > X:[ -12 , -11 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window: } 207 \rangle X:[-12, -11] Y:[1, 2]
Found Entropy: 0
\langle \text{Window: } 208 \rangle \ \text{X:[} -12 \ , -11 \ ] \ \text{Y:[} 2 \ , 3 \ ]
Found Entropy: 0
<Window: 209 > X:[ -12 , -11 ] Y:[ 3 , 4 ]
Found Entropy: 0
\{Window: 210 > X:[-12, -11] Y:[4, 5]
Found Entropy: 0
\{Window: 211 > X:[-11, -10] Y:[-9, -8]
Found Entropy: 0
<Window: 212 > X:[ -11 , -10 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 213 > X:[ -11 , -10 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 214 > X:[ -11 , -10 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 215 \rangle X: [-11, -10] Y: [-5, -4]
Found Entropy: 0
```

```
\langle \text{Window}: 216 \rangle X: [-11, -10] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 217 > X:[-11, -10] Y:[-3, -2]
Found Entropy: 0
\{Window: 218 > X:[-11, -10] Y:[-2, -1]
Found Entropy: 0
<Window: 219 > X:[ -11 , -10 ] Y:[ -1 , 0 ]
Found Entropy: 0
\{Window: 220 > X:[-11, -10] Y:[0, 1]
Found Entropy: 0
<Window: 221 > X:[ -11 , -10 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window: } 222 \rangle X:[-11, -10] Y:[2, 3]
Found Entropy: 0
\langle \text{Window: } 223 \rangle X:[-11, -10] Y:[3, 4]
Found Entropy: 0
\langle \text{Window}: 224 \rangle X: [-11, -10] Y: [4, 5]
Found Entropy: 0
\langle Window: 225 \rangle X:[-10, -9] Y:[-9, -8]
Found Entropy: 0
<Window: 226 > X:[ -10 , -9 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window: } 227 \rangle \text{ X:[} -10 , -9 ] \text{ Y:[} -7 , -6 ]
Found Entropy: 0
<Window: 228 > X:[ -10 , -9 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 229 \rangle X:[-10, -9] Y:[-5, -4]
Found Entropy: 0
\langle \text{Window}: 230 \rangle X: [-10, -9] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 231 \rangle X: [-10, -9] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 232 \rangle X: [-10, -9] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 233 \rangle X: [-10, -9] Y: [-1, 0]
Found Entropy: 0
<Window: 234 > X:[ -10 , -9 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 235 > X:[ -10 , -9 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window: } 236 \rangle \text{ X:[} -10 , -9 ] \text{ Y:[} 2 , 3 ]
Found Entropy: 0
<Window: 237 > X:[ -10 , -9 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window: } 238 \rangle \ \text{X:[} -10 \ , -9 \ ] \ \text{Y:[} 4 \ , 5 \ ]
Found Entropy: 0
<Window: 239 > X:[-9, -8] Y:[-9, -8]
Found Entropy: 0
```

```
\langle \text{Window: } 240 \rangle \text{ X:[} -9 , -8 ] \text{ Y:[} -8 , -7 ]
Found Entropy: 0
\langle \text{Window: } 241 \rangle \ \text{X:[} -9 \ , -8 \ ] \ \text{Y:[} -7 \ , -6 \ ]
Found Entropy: 0
\{Window: 242 > X: [ -9 , -8 ] Y: [ -6 , -5 ] <math>\}
Found Entropy: 0
\langle \text{Window}: 243 \rangle X: [-9, -8] Y: [-5, -4]
Found Entropy: 0
\{Window: 244 > X: [ -9 , -8 ] Y: [ -4 , -3 ] <math>\}
Found Entropy: 0
\langle \text{Window}: 245 \rangle X: [-9, -8] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 246 \rangle X: [-9, -8] Y: [-2, -1]
Found Entropy: 0
<Window: 247 > X:[-9, -8] Y:[-1, 0]
Found Entropy: 0
<Window: 248 > X:[ -9 , -8 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 249 > X:[-9, -8] Y:[1, 2]
Found Entropy: 0
<Window: 250 > X:[ -9 , -8 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 251 > X:[ -9 , -8 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 252 > X:[ -9 , -8 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 253 \rangle X: [-8, -7] Y: [-9, -8]
Found Entropy: 0
<Window: 254 > X:[ -8 , -7 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window}: 255 \rangle X: [-8, -7] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 256 \rangle X: [-8, -7] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 257 \rangle X: [-8, -7] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 258 \rangle X: [-8, -7] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 259 \rangle X: [-8, -7] Y: [-3, -2]
Found Entropy: 0
\forall X:[-8,-7] Y:[-2,-1]
Found Entropy: 0
\langle \text{Window}: 261 \rangle X: [-8, -7] Y: [-1, 0]
Found Entropy: 0
<Window: 262 > X:[ -8 , -7 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 263 > X:[ -8 , -7 ] Y:[ 1 , 2 ]
Found Entropy: 0
```

```
\langle \text{Window}: 264 \rangle X: [-8, -7] Y: [2, 3]
Found Entropy: 0
<Window: 265 > X:[ -8 , -7 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 266 > X:[ -8 , -7 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 267 \rangle X: [-7, -6] Y: [-9, -8]
Found Entropy: 0
\{Window: 268 > X: [ -7 , -6 ] Y: [ -8 , -7 ] 
Found Entropy: 0
\{\text{Window: } 269 > \text{X:[} -7 , -6 ] \text{ Y:[} -7 , -6 ]
Found Entropy: 0
\forall x = 100 \times 100 \times 100 \times 1000 \times 1000
Found Entropy: 0
\forall X:[-7,-6] Y:[-5,-4]
Found Entropy: 0
\forall x = 100 \text{ Window} : 272 > x : [ -7 , -6 ] Y : [ -4 , -3 ]
Found Entropy: 0
\forall X:[-7,-6] Y:[-3,-2]
Found Entropy: 0
<Window: 274 > X:[-7, -6] Y:[-2, -1]
Found Entropy: 0
\langle \text{Window}: 275 \rangle X: [-7, -6] Y: [-1, 0]
Found Entropy: 0
<Window: 276 > X:[ -7 , -6 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 277 \rangle X:[-7,-6] Y:[1,2]
Found Entropy: 0
\langle \text{Window}: 278 \rangle X:[-7,-6] Y:[2,3]
Found Entropy: 0
<Window: 279 > X:[ -7 , -6 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 280 > X:[ -7 , -6 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 281 \rangle X: [-6, -5] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 282 \rangle X: [-6, -5] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 283 \rangle X: [-6, -5] Y: [-7, -6]
Found Entropy: 0
<Window: 284 > X:[ -6 , -5 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 285 \rangle X: [ -6 , -5 ] Y: [ -5 , -4 ]
Found Entropy: 0
<Window: 286 > X:[ -6 , -5 ] Y:[ -4 , -3 ]
Found Entropy: 0
\forall X: [-6, -5] Y: [-3, -2]
Found Entropy: 0
```

```
\langle \text{Window: 288} \rangle X: [-6, -5] Y: [-2, -1]
Found Entropy: 0
<Window: 289 > X:[ -6 , -5 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 290 > X:[ -6 , -5 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 291 > X:[ -6 , -5 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window}: 292 \rangle X: [-6, -5] Y: [2, 3]
Found Entropy: 0
\langle \text{Window}: 293 \rangle X: [-6, -5] Y: [3, 4]
Found Entropy: 0
\forall X: [-6, -5] Y: [4, 5]
Found Entropy: 0
\langle \text{Window: } 295 \rangle X:[-5, -4] Y:[-9, -8]
Found Entropy: 0
\forall X: [-5, -4] Y: [-8, -7]
Found Entropy: 0
\forall X: [-5, -4] Y: [-7, -6]
Found Entropy: 0
<Window: 298 > X:[ -5 , -4 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 299 \rangle \ X: [-5, -4] \ Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 300 \rangle X: [-5, -4] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 301 \rangle X: [-5, -4] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 302 \rangle X: [-5, -4] Y: [-2, -1]
Found Entropy: 0
<Window: 303 > X:[-5, -4] Y:[-1, 0]
Found Entropy: 0
<Window: 304 > X:[ -5 , -4 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 305 \rangle X: [-5, -4] Y: [1, 2]
Found Entropy: 0
<Window: 306 > X:[ -5 , -4 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 307 > X:[ -5 , -4 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 308 > X:[ -5 , -4 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 309 \rangle \ \text{X:[} -4 , -3 \ ] \ \text{Y:[} -9 , -8 \ ]
Found Entropy: 0
<Window: 310 > X:[ -4 , -3 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 311 > X:[ -4 , -3 ] Y:[ -7 , -6 ]
Found Entropy: 0
```

```
\langle \text{Window}: 312 \rangle X: [-4, -3] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 313 \rangle X: [-4, -3] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 314 \rangle X: [-4, -3] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 315 \rangle X: [-4, -3] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 316 \rangle X: [-4, -3] Y: [-2, -1]
Found Entropy: 0
<Window: 317 > X:[-4, -3] Y:[-1, 0]
Found Entropy: 0
<Window: 318 > X:[ -4 , -3 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 319 \rangle X: [-4, -3] Y: [1, 2]
Found Entropy: 0
\langle \text{Window}: 320 \rangle X: [-4, -3] Y: [2, 3]
Found Entropy: 0
<Window: 321 > X:[-4, -3] Y:[3, 4]
Found Entropy: 0
\langle \text{Window}: 322 \rangle X: [-4, -3] Y: [4, 5]
Found Entropy: 0
\langle \text{Window}: 323 \rangle X: [-3, -2] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 324 \rangle X: [-3, -2] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 325 \rangle X: [-3, -2] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 326 \rangle X: [-3, -2] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 327 \rangle X:[-3, -2] Y:[-5, -4]
Found Entropy: 0
\langle \text{Window}: 328 \rangle X: [-3, -2] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 329 \rangle X: [-3, -2] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 330 \rangle X: [-3, -2] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 331 \rangle X: [-3, -2] Y: [-1, 0]
Found Entropy: 0
<Window: 332 > X:[ -3 , -2 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 333 > X:[ -3 , -2 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 334 > X:[ -3 , -2 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 335 > X:[ -3 , -2 ] Y:[ 3 , 4 ]
Found Entropy: 0
```

```
<Window: 336 > X:[ -3 , -2 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 337 \rangle \text{ X:} [ -2 , -1 ] \text{ Y:} [ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 338 \rangle X: [-2, -1] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 339 \rangle X: [-2, -1] Y: [-7, -6]
Found Entropy: 0
\{Window: 340 > X: [ -2 , -1 ] Y: [ -6 , -5 ] <math>\}
Found Entropy: 0
\langle \text{Window}: 341 \rangle X: [-2, -1] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 342 \rangle X: [-2, -1] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 343 \rangle X: [-2, -1] Y: [-3, -2]
Found Entropy: 0
<Window: 344 > X:[ -2 , -1 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 345 > X:[ -2 , -1 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 346 > X:[ -2 , -1 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 347 \rangle X: [-2, -1] Y: [1, 2]
Found Entropy: 0
\langle \text{Window}: 348 \rangle X: [-2, -1] Y: [2, 3]
Found Entropy: 0
<Window: 349 > X:[ -2 , -1 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 350 > X:[ -2 , -1 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 351 > X:[ -1 , 0 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 352 > X:[-1, 0] Y:[-8, -7]
Found Entropy: 0
\langle \text{Window}: 353 \rangle X: [-1, 0] Y: [-7, -6]
Found Entropy: 0
<Window: 354 > X:[ -1 , 0 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 355 \rangle X: [-1, 0] Y: [-5, -4]
Found Entropy: 0
<Window: 356 > X:[ -1 , 0 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 357 > X:[-1, 0] Y:[-3, -2]
Found Entropy: 0
\langle \text{Window}: 358 \rangle X: [-1, 0] Y: [-2, -1]
Found Entropy: 0
<Window: 359 > X:[ -1 , 0 ] Y:[ -1 , 0 ]
Found Entropy: 0
```

```
<Window: 360 > X:[ -1 , 0 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 361 > X:[ -1 , 0 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window}: 362 \rangle X:[-1, 0] Y:[2, 3]
Found Entropy: 0
<Window: 363 > X:[ -1 , 0 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 364 > X:[ -1 , 0 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 365 \rangle X: [0, 1] Y: [-9, -8]
Found Entropy: 0
<Window: 366 > X:[ 0 , 1 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 367 > X:[ 0 , 1 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 368 > X:[ 0 , 1 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 369 > X:[0, 1] Y:[-5, -4]
Found Entropy: 0
<Window: 370 > X:[ 0 , 1 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 371 > X:[ 0 , 1 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window}: 372 \rangle X:[0,1] Y:[-2,-1]
Found Entropy: 0
<Window: 373 > X:[0, 1] Y:[-1, 0]
Found Entropy: 0
<Window: 374 > X:[ 0 , 1 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 375 > X:[ 0 , 1 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 376 > X:[ 0 , 1 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 377 > X:[ 0 , 1 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 378 > X:[ 0 , 1 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 379 \rangle X: [1, 2] Y: [-9, -8]
Found Entropy: 0
<Window: 380 > X:[ 1 , 2 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window}: 381 \rangle X: [1, 2] Y: [-7, -6]
Found Entropy: 0
<Window: 382 > X:[ 1 , 2 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 383 > X:[1,2] Y:[-5,-4]
Found Entropy: 0
```

```
<Window: 384 > X:[1,2] Y:[-4,-3]
Found Entropy: 0
\langle \text{Window}: 385 \rangle X: [1, 2] Y: [-3, -2]
Found Entropy: 0
\{\text{Window: } 386 > X:[1,2] Y:[-2,-1]
Found Entropy: 0
<Window: 387 > X:[1,2] Y:[-1,0]
Found Entropy: 0
<Window: 388 > X:[ 1 , 2 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 389 \rangle X:[1,2] Y:[1,2]
Found Entropy: 0
<Window: 390 > X:[1,2] Y:[2,3]
Found Entropy: 0
<Window: 391 > X:[ 1 , 2 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 392 > X:[ 1 , 2 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 393 > X:[ 2 , 3 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 394 > X:[ 2 , 3 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 395 > X:[ 2 , 3 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 396 > X:[ 2 , 3 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 397 > X:[ 2 , 3 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 398 \rangle X: [2, 3] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 399 \rangle X: [2, 3] Y: [-3, -2]
Found Entropy: 0
\{\text{Window: } 400 > X: [2, 3] Y: [-2, -1]
Found Entropy: 0
\langle Window: 401 \rangle X:[2,3] Y:[-1,0]
Found Entropy: 0
<Window: 402 > X:[ 2 , 3 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 403 > X:[ 2 , 3 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 404 > X:[2,3] Y:[2,3]
Found Entropy: 0
<Window: 405 > X:[2,3] Y:[3,4]
Found Entropy: 0
<Window: 406 > X:[ 2 , 3 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 407 > X:[ 3 , 4 ] Y:[ -9 , -8 ]
Found Entropy: 0
```

```
<Window: 408 > X:[3,4] Y:[-8,-7]
Found Entropy: 0
<Window: 409 > X:[3,4] Y:[-7,-6]
Found Entropy: 0
<Window: 410 > X:[3, 4] Y:[-6, -5]
Found Entropy: 0
\langle \text{Window}: 411 > X:[3,4] Y:[-5,-4]
Found Entropy: 0
\langle \text{Window}: 412 \rangle X: [3, 4] Y: [-4, -3]
Found Entropy: 0
\langle Window: 413 \rangle X: [3, 4] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 414 \rangle X:[3,4] Y:[-2,-1]
Found Entropy: 0
<Window: 415 > X:[ 3 , 4 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 416 > X:[ 3 , 4 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 417 > X:[3, 4] Y:[1, 2]
Found Entropy: 0
<Window: 418 > X:[3, 4] Y:[2, 3]
Found Entropy: 0
<Window: 419 > X:[ 3 , 4 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 420 > X:[ 3 , 4 ] Y:[ 4 , 5 ]
Found Entropy: 0
\{\text{Window: } 421 > X:[4,5] Y:[-9,-8]
Found Entropy: 0
<Window: 422 > X:[ 4 , 5 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 423 > X:[ 4 , 5 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 424 > X:[ 4 , 5 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 425 > X:[ 4 , 5 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 426 \rangle X: [4, 5] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 427 \rangle X: [4, 5] Y: [-3, -2]
Found Entropy: 0
<Window: 428 > X:[4,5] Y:[-2,-1]
Found Entropy: 0
<Window: 429 > X:[ 4 , 5 ] Y:[ -1 , 0 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 430 > X:[ 4 , 5 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 431 > X:[ 4 , 5 ] Y:[ 1 , 2 ]
```

```
Found Entropy: 0
<Window: 432 > X:[ 4 , 5 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 433 > X:[4,5] Y:[3,4]
Found Entropy: 0
<Window: 434 > X:[ 4 , 5 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 435 > X:[5,6] Y:[-9,-8]
Found Entropy: 0
<Window: 436 > X:[5,6] Y:[-8,-7]
Found Entropy: 0
<Window: 437 > X:[5,6] Y:[-7,-6]
Found Entropy: 0
<Window: 438 > X:[5,6] Y:[-6,-5]
Found Entropy: 0
<Window: 439 > X:[5,6] Y:[-5,-4]
Found Entropy: 0
<Window: 440 > X:[5,6] Y:[-4,-3]
Found Entropy: 0
\langle \text{Window}: 441 \rangle X: [5, 6] Y: [-3, -2]
Found Entropy: 0
<Window: 442 > X:[5,6] Y:[-2,-1]
Found Entropy: 0
<Window: 443 > X:[5,6] Y:[-1,0]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.6365141682948128
<Window: 444 > X:[ 5 , 6 ] Y:[ 0 , 1 ]
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.6931471805599453
<Window: 445 > X:[ 5 , 6 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 446 > X:[ 5 , 6 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 447 > X:[ 5 , 6 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 448 > X:[5,6] Y:[4,5]
Found Entropy: 0
<Window: 449 > X:[6, 7] Y:[-9, -8]
Found Entropy: 0
<Window: 450 > X:[ 6 , 7 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 451 > X:[6,7] Y:[-7,-6]
Found Entropy: 0
<Window: 452 > X:[6,7] Y:[-6,-5]
Found Entropy: 0
```

```
<Window: 453 > X:[ 6 , 7 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 454 > X:[6,7] Y:[-4,-3]
Found Entropy: 0
\langle \text{Window}: 455 \rangle X: [6, 7] Y: [-3, -2]
Found Entropy: 0
<Window: 456 > X:[6,7] Y:[-2,-1]
Found Entropy: 0
<Window: 457 > X:[6,7] Y:[-1,0]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 1.0986122886681096
<Window: 458 > X:[ 6 , 7 ] Y:[ 0 , 1 ]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.6365141682948128
<Window: 459 > X:[6,7] Y:[1,2]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 460 > X:[ 6 , 7 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 461 > X:[ 6 , 7 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 462 > X:[ 6 , 7 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 463 > X:[ 7 , 8 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 464 > X:[7,8] Y:[-8,-7]
Found Entropy: 0
<Window: 465 > X:[7,8] Y:[-7,-6]
Found Entropy: 0
<Window: 466 > X:[7,8] Y:[-6,-5]
Found Entropy: 0
<Window: 467 > X:[ 7 , 8 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 468 > X:[ 7 , 8 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 469 > X:[ 7 , 8 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 470 > X:[7,8] Y:[-2,-1]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 471 > X:[7,8] Y:[-1,0]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
```

```
<Window: 472 > X:[7,8] Y:[0,1]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.5623351446188083
<Window: 473 > X:[ 7 , 8 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 474 > X:[ 7 , 8 ] Y:[ 2 , 3 ]
Found Entropy: 0
\{\text{Window: } 475 > X:[7,8] Y:[3,4]
Found Entropy: 0
<Window: 476 > X:[ 7 , 8 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 477 > X:[8,9] Y:[-9,-8]
Found Entropy: 0
<Window: 478 > X:[8,9] Y:[-8,-7]
Found Entropy: 0
<Window: 479 > X:[8, 9] Y:[-7, -6]
Found Entropy: 0
<Window: 480 > X:[8,9] Y:[-6,-5]
Found Entropy: 0
<Window: 481 > X:[8,9] Y:[-5,-4]
Found Entropy: 0
\langle \text{Window}: 482 \rangle X: [8, 9] Y: [-4, -3]
Found Entropy: 0
<Window: 483 > X:[8,9] Y:[-3,-2]
Found Entropy: 0
<Window: 484 > X:[8,9] Y:[-2,-1]
Found Entropy: 0
<Window: 485 > X:[8,9] Y:[-1,0]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.6365141682948128
<Window: 486 > X:[ 8 , 9 ] Y:[ 0 , 1 ]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 487 > X:[ 8 , 9 ] Y:[ 1 , 2 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 488 > X:[8,9] Y:[2,3]
Found Entropy: 0
<Window: 489 > X:[ 8 , 9 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 490 > X:[ 8 , 9 ] Y:[ 4 , 5 ]
Found Entropy: 0
```

```
<Window: 491 > X:[ 9 , 10 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 492 > X:[9, 10] Y:[-8, -7]
Found Entropy: 0
<Window: 493 > X:[ 9 , 10 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 494 > X:[ 9 , 10 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 495 > X:[9, 10] Y:[-5, -4]
Found Entropy: 0
\langle \text{Window}: 496 \rangle X: [9, 10] Y: [-4, -3]
Found Entropy: 0
<Window: 497 > X:[9, 10] Y:[-3, -2]
Found Entropy: 0
<Window: 498 > X:[ 9 , 10 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 499 > X:[ 9 , 10 ] Y:[ -1 , 0 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 500 > X:[ 9 , 10 ] Y:[ 0 , 1 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 501 > X:[ 9 , 10 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 502 > X:[ 9 , 10 ] Y:[ 2 , 3 ]
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.6931471805599453
<Window: 503 > X:[ 9 , 10 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 504 > X:[ 9 , 10 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 505 > X:[ 10 , 11 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 506 > X:[ 10 , 11 ] Y:[ -8 , -7 ]
Found Entropy: 0
\{Window: 507 > X:[10, 11] Y:[-7, -6]
Found Entropy: 0
<Window: 508 > X:[ 10 , 11 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 509 > X:[ 10 , 11 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window: 510} \rangle \text{ X:[ 10 , 11 ] Y:[ -4 , -3 ]}
Found Entropy: 0
<Window: 511 > X:[ 10 , 11 ] Y:[ -3 , -2 ]
Found Entropy: 0
\forall X:[10, 11] Y:[-2, -1]
Found Entropy: 0
```

```
<Window: 513 > X:[ 10 , 11 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 514 > X:[ 10 , 11 ] Y:[ 0 , 1 ]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 1.0397207708399179
<Window: 515 > X:[ 10 , 11 ] Y:[ 1 , 2 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 516 > X:[ 10 , 11 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 517 > X:[ 10 , 11 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 518 > X:[ 10 , 11 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 519 > X:[ 11 , 12 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 520 > X:[ 11 , 12 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window: 521} \rangle X: [11, 12] Y: [-7, -6]
Found Entropy: 0
<Window: 522 > X:[ 11 , 12 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 523 > X:[ 11 , 12 ] Y:[ -5 , -4 ]
Found Entropy: 0
\forall Window: 524 > X:[ 11 , 12 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 525 \rangle X: [11, 12] Y: [-3, -2]
Found Entropy: 0
<Window: 526 > X:[ 11 , 12 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 527 > X:[ 11 , 12 ] Y:[ -1 , 0 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 528 > X:[ 11 , 12 ] Y:[ 0 , 1 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 529 > X:[ 11 , 12 ] Y:[ 1 , 2 ]
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.6931471805599453
<Window: 530 > X:[ 11 , 12 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
```

```
<Window: 531 > X:[ 11 , 12 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 532 > X:[11, 12] Y:[4, 5]
Found Entropy: 0
<Window: 533 > X:[ 12 , 13 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window: } 534 \rangle \text{ X:} [ 12 , 13 ] \text{ Y:} [ -8 , -7 ]
Found Entropy: 0
<Window: 535 > X:[ 12 , 13 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 536 > X:[ 12 , 13 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 537 > X:[ 12 , 13 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window: 538} \rangle \text{ X:[ 12 , 13 ] Y:[ -4 , -3 ]}
Found Entropy: 0
\langle \text{Window: 539} \rangle X: [12, 13] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 540 \rangle X: [12, 13] Y: [-2, -1]
Found Entropy: 0
<Window: 541 > X:[ 12 , 13 ] Y:[ -1 , 0 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 542 > X:[ 12 , 13 ] Y:[ 0 , 1 ]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 1.0986122886681096
<Window: 543 > X:[ 12 , 13 ] Y:[ 1 , 2 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 544 > X:[ 12 , 13 ] Y:[ 2 , 3 ]
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.6931471805599453
<Window: 545 > X:[ 12 , 13 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 546 > X:[ 12 , 13 ] Y:[ 4 , 5 ]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
\langle \text{Window: 547} \rangle X: [13, 14] Y: [-9, -8]
```

```
Found Entropy: 0
<Window: 548 > X:[ 13 , 14 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 549 > X:[13, 14] Y:[-7, -6]
Found Entropy: 0
<Window: 550 > X:[ 13 , 14 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 551 > X:[ 13 , 14 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 552 > X:[ 13 , 14 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 553 \rangle X: [13, 14] Y: [-3, -2]
Found Entropy: 0
<Window: 554 > X:[ 13 , 14 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 555 > X:[ 13 , 14 ] Y:[ -1 , 0 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 556 > X:[ 13 , 14 ] Y:[ 0 , 1 ]
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 557 > X:[ 13 , 14 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 558 > X:[ 13 , 14 ] Y:[ 2 , 3 ]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.6365141682948128
<Window: 559 > X:[ 13 , 14 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 560 > X:[ 13 , 14 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 561 > X:[ 14 , 15 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 562 > X:[ 14 , 15 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 563 > X:[ 14 , 15 ] Y:[ -7 , -6 ]
Found Entropy: 0
\langle \text{Window}: 564 \rangle X: [14, 15] Y: [-6, -5]
Found Entropy: 0
<Window: 565 > X:[ 14 , 15 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 566 > X:[ 14 , 15 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 567 \rangle X: [14, 15] Y: [-3, -2]
Found Entropy: 0
<Window: 568 > X:[ 14 , 15 ] Y:[ -2 , -1 ]
```

```
Found Entropy: 0
<Window: 569 > X:[ 14 , 15 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 570 > X:[ 14 , 15 ] Y:[ 0 , 1 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 571 > X:[ 14 , 15 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 572 > X:[ 14 , 15 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 573 > X:[ 14 , 15 ] Y:[ 3 , 4 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 574 > X:[ 14 , 15 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: 575} \rangle X: [15, 16] Y: [-9, -8]
Found Entropy: 0
<Window: 576 > X:[ 15 , 16 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 577 > X:[ 15 , 16 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 578 > X:[ 15 , 16 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 579 > X:[ 15 , 16 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 580 > X:[ 15 , 16 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: 581} \rangle \text{ X:[ 15 , 16 ] Y:[ -3 , -2 ]}
Found Entropy: 0
<Window: 582 > X:[ 15 , 16 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 583 > X:[ 15 , 16 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 584 > X:[ 15 , 16 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 585 > X:[ 15 , 16 ] Y:[ 1 , 2 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 586 > X:[ 15 , 16 ] Y:[ 2 , 3 ]
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 587 > X:[ 15 , 16 ] Y:[ 3 , 4 ]
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 588 > X:[ 15 , 16 ] Y:[ 4 , 5 ]
Found Entropy: 0
```

```
<Window: 589 > X:[ 16 , 17 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 590 > X:[ 16 , 17 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 591 > X:[ 16 , 17 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 592 > X:[ 16 , 17 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 593 > X:[ 16 , 17 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 594 > X:[ 16 , 17 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 595 \rangle X: [16, 17] Y: [-3, -2]
Found Entropy: 0
<Window: 596 > X:[ 16 , 17 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 597 > X:[16, 17] Y:[-1, 0]
Found Entropy: 0
<Window: 598 > X:[ 16 , 17 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 599 > X:[ 16 , 17 ] Y:[ 1 , 2 ]
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 600 > X:[ 16 , 17 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 601 > X:[ 16 , 17 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6365141682948128
<Window: 602 > X:[ 16 , 17 ] Y:[ 4 , 5 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 603 > X:[ 17 , 18 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window: } 604 \rangle \text{ X:} [17, 18] \text{ Y:} [-8, -7]
Found Entropy: 0
\langle \text{Window: } 605 \rangle \text{ X:} [17, 18] \text{ Y:} [-7, -6]
Found Entropy: 0
<Window: 606 > X:[ 17 , 18 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 607 > X:[ 17 , 18 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 608 > X:[ 17 , 18 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 609 \rangle \ \text{X:} [ 17 , 18 ] \ \text{Y:} [ -3 , -2 ]
```

```
Found Entropy: 0
<Window: 610 > X:[ 17 , 18 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 611 > X:[ 17 , 18 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 612 > X:[ 17 , 18 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 613 > X:[ 17 , 18 ] Y:[ 1 , 2 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 614 > X:[ 17 , 18 ] Y:[ 2 , 3 ]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 1.0397207708399179
<Window: 615 > X:[ 17 , 18 ] Y:[ 3 , 4 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 616 > X:[ 17 , 18 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 617 > X:[ 18 , 19 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 618 > X:[ 18 , 19 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window: 619} \rangle X: [18, 19] Y: [-7, -6]
Found Entropy: 0
<Window: 620 > X:[ 18 , 19 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 621 \rangle X: [18, 19] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window: } 622 \rangle \text{ X:} [ 18 , 19 ] \text{ Y:} [ -4 , -3 ]
Found Entropy: 0
<Window: 623 > X:[ 18 , 19 ] Y:[ -3 , -2 ]
Found Entropy: 0
\{\text{Window: } 624 > X: [18, 19] Y: [-2, -1]
Found Entropy: 0
<Window: 625 > X:[ 18 , 19 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 626 > X:[ 18 , 19 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 627 > X:[ 18 , 19 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 628 > X:[ 18 , 19 ] Y:[ 2 , 3 ]
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.6931471805599453
```

```
<Window: 629 > X:[ 18 , 19 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6365141682948128
<Window: 630 > X:[ 18 , 19 ] Y:[ 4 , 5 ]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
\langle \text{Window: } 631 \rangle \text{ X:} [19, 20] \text{ Y:} [-9, -8]
Found Entropy: 0
\langle \text{Window: } 632 \rangle \text{ X:} [ 19 , 20 ] \text{ Y:} [ -8 , -7 ]
Found Entropy: 0
<Window: 633 > X:[ 19 , 20 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 634 > X:[ 19 , 20 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 635 > X:[ 19 , 20 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 636 \rangle X: [19, 20] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 637 \rangle X: [19, 20] Y: [-3, -2]
Found Entropy: 0
<Window: 638 > X:[ 19 , 20 ] Y:[ -2 , -1 ]
Found Entropy: 0
\{\text{Window: } 639 > X: [19, 20] Y: [-1, 0]
Found Entropy: 0
<Window: 640 > X:[ 19 , 20 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 641 > X:[ 19 , 20 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 642 > X:[19, 20] Y:[2, 3]
Found Entropy: 0
<Window: 643 > X:[ 19 , 20 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 644 > X:[ 19 , 20 ] Y:[ 4 , 5 ]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 1.0549201679861442
<Window: 645 > X:[ 20 , 21 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 646 > X:[ 20 , 21 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window: } 647 \rangle \text{ X:} [ 20 , 21 ] \text{ Y:} [ -7 , -6 ]
```

```
Found Entropy: 0
<Window: 648 > X:[ 20 , 21 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 649 > X:[ 20 , 21 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 650 > X:[ 20 , 21 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 651 \rangle \ \text{X:} [ 20 , 21 ] \ \text{Y:} [ -3 , -2 ]
Found Entropy: 0
\langle \text{Window}: 652 \rangle X: [20, 21] Y: [-2, -1]
Found Entropy: 0
<Window: 653 > X:[ 20 , 21 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 654 > X:[ 20 , 21 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 655 > X:[ 20 , 21 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 656 > X:[ 20 , 21 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 657 > X:[ 20 , 21 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 658 > X:[ 20 , 21 ] Y:[ 4 , 5 ]
Found a sample of class: 1
Found Entropy: 0.0
Total Count: 658
Expected Count: 658
OKAY: True
----Done--- 24.74648285936983
Done!
-26 21 -9 5
You Can use this matrix now.
X_{min} = -26
X \max = 21
Y min= -9
Y \max = 5
And the Matrix Shape: 47 * 14
\{Window: 1 > X:[ -26 , -25 ] Y:[ -9 , -8 ]
Found Entropy: 0
\{\text{Window: 2 > X:[-26,-25] Y:[-8,-7]}
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 3 > X:[ -26 , -25 ] Y:[ -7 , -6 ]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
```

```
Found a sample of class: 2
Found Entropy: 0.0
\{\text{Window: 4} > \text{X:[-26,-25]} \text{Y:[-6,-5]}
Found Entropy: 0
\{Window: 5 > X:[ -26 , -25 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 6 \rangle X: [-26, -25] Y: [-4, -3]
Found Entropy: 0
\{Window: 7 > X:[ -26 , -25 ] Y:[ -3 , -2 ]
Found Entropy: 0
\{\text{Window: 8 > X: [-26, -25] Y: [-2, -1]}
Found Entropy: 0
\{\text{Window: 9 > X:[-26,-25] Y:[-1,0]}
Found Entropy: 0
<Window: 10 > X:[ -26 , -25 ] Y:[ 0 , 1 ]
Found Entropy: 0
\{\text{Window: } 11 > X: [ -26 , -25 ] Y: [ 1 , 2 ] \}
Found Entropy: 0
\{Window: 12 > X:[ -26 , -25 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 13 > X:[ -26 , -25 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 14 > X:[ -26 , -25 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 15 \rangle X: [-25, -24] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 16 \rangle X: [-25, -24] Y: [-8, -7]
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 0.6931471805599453
\langle \text{Window}: 17 > X:[-25, -24] Y:[-7, -6]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 1.0397207708399179
\langle \text{Window}: 18 \rangle X: [-25, -24] Y: [-6, -5]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window: } 19 \rangle \ \text{X:} [ -25 , -24 ] \ \text{Y:} [ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 20 \rangle X: [-25, -24] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 21 \rangle X: [-25, -24] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 22 \rangle X: [-25, -24] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 23 \rangle X: [-25, -24] Y: [-1, 0]
```

```
Found Entropy: 0
\forall x \in X : [-25, -24] Y : [0, 1]
Found Entropy: 0
\{\text{Window: } 25 > X: [-25, -24] Y: [1, 2]
Found Entropy: 0
<Window: 26 > X:[ -25 , -24 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 27 > X:[ -25 , -24 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 28 > X:[ -25 , -24 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 29 \rangle X: [-24, -23] Y: [-9, -8]
Found Entropy: 0
<Window: 30 > X:[ -24 , -23 ] Y:[ -8 , -7 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
\langle \text{Window}: 31 \rangle X: [-24, -23] Y: [-7, -6]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.6931471805599453
\langle \text{Window}: 32 \rangle X: [-24, -23] Y: [-6, -5]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 33 \rangle X: [-24, -23] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 34 \rangle X: [-24, -23] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 35 \rangle X: [-24, -23] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 36 \rangle X: [-24, -23] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 37 \rangle X: [-24, -23] Y: [-1, 0]
Found Entropy: 0
<Window: 38 > X:[-24, -23] Y:[0, 1]
Found Entropy: 0
<Window: 39 > X:[ -24 , -23 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 40 > X:[-24, -23] Y:[2, 3]
Found Entropy: 0
\{\text{Window: } 41 > X: [ -24 , -23 ] Y: [ 3 , 4 ] \}
Found Entropy: 0
\forall x \in X : [-24, -23] Y : [4, 5]
Found Entropy: 0
\forall 1 = 1  \forall 1 = 1  \forall 2 = 1  \forall 3 = 1  \forall 4 = 1  \forall 5 = 1  \forall 6 = 1 
Found Entropy: 0
```

```
\langle \text{Window}: 44 \rangle X: [-23, -22] Y: [-8, -7]
Found a sample of class: 2
Found Entropy: 0.0
\{\text{Window: } 45 > \text{X:} [-23, -22] \text{ Y:} [-7, -6] \}
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.6931471805599453
\langle \text{Window}: 46 \rangle X: [-23, -22] Y: [-6, -5]
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6931471805599453
\langle \text{Window}: 47 \rangle X: [-23, -22] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window: } 48 \rangle \ \text{X:[} -23 \ , -22 \ ] \ \text{Y:[} -4 \ , -3 \ ]
Found Entropy: 0
\langle \text{Window}: 49 \rangle X: [-23, -22] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 50 \rangle X: [-23, -22] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 51 \rangle X: [-23, -22] Y: [-1, 0]
Found Entropy: 0
\{\text{Window: } 52 > X:[-23, -22] Y:[0, 1]
Found Entropy: 0
\langle \text{Window}: 53 \rangle X: [-23, -22] Y: [1, 2]
Found Entropy: 0
<Window: 54 > X:[ -23 , -22 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 55 > X:[ -23 , -22 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 56 > X:[ -23 , -22 ] Y:[ 4 , 5 ]
Found Entropy: 0
\{Window: 57 > X:[ -22 , -21 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window: 58} \rangle \text{ X: [ -22 , -21 ] Y: [ -8 , -7 ]}
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
\langle \text{Window}: 59 \rangle X: [-22, -21] Y: [-7, -6]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\forall \text{Window: } 60 > X:[-22, -21] Y:[-6, -5]
Found Entropy: 0
\langle \text{Window}: 61 \rangle X: [-22, -21] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window: } 62 \rangle \text{ X: [ } -22 \text{ , } -21 \text{ ] } \text{ Y: [ } -4 \text{ , } -3 \text{ ]}
```

```
Found Entropy: 0
\forall \text{Window: } 63 > X:[-22, -21] Y:[-3, -2]
Found Entropy: 0
\{\text{Window: } 64 > X: [-22, -21] \ Y: [-2, -1] \}
Found Entropy: 0
<Window: 65 > X:[ -22 , -21 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 66 > X:[ -22 , -21 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 67 > X:[ -22 , -21 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 68 > X:[ -22 , -21 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 69 > X:[ -22 , -21 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window: 70} \rangle X: [-22, -21] Y: [4, 5]
Found Entropy: 0
\{\text{Window: 71} > \text{X:} [-21, -20] \text{ Y:} [-9, -8] \}
Found a sample of class: 1
Found Entropy: 0.0
\langle \text{Window}: 72 \rangle X: [-21, -20] Y: [-8, -7]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 0.6365141682948128
\{Window: 73 > X:[ -21 , -20 ] Y:[ -7 , -6 ]
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 1.0114042647073518
\{\text{Window: } 74 > \text{X:} [-21, -20] \text{ Y:} [-6, -5] \}
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6931471805599453
\langle \text{Window}: 75 \rangle X: [-21, -20] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 76 \rangle X: [-21, -20] Y: [-4, -3]
Found Entropy: 0
<Window: 77 > X:[ -21 , -20 ] Y:[ -3 , -2 ]
Found Entropy: 0
\{Window: 78 > X:[ -21 , -20 ] Y:[ -2 , -1 ]
Found Entropy: 0
\{\text{Window: 79} > \text{X:} [-21, -20] \text{ Y:} [-1, 0]
Found Entropy: 0
<Window: 80 > X:[ -21 , -20 ] Y:[ 0 , 1 ]
```

```
Found Entropy: 0
\forall X: [-21, -20] Y: [1, 2]
Found Entropy: 0
<Window: 82 > X:[ -21 , -20 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 83 > X:[ -21 , -20 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 84 > X:[ -21 , -20 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 85 \rangle X: [-20, -19] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 86 \rangle X: [-20, -19] Y: [-8, -7]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window: 87} \rangle \text{ X: [ -20 , -19 ] Y: [ -7 , -6 ]}
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.6931471805599453
\langle \text{Window: 88} \rangle \text{ X:} [-20, -19] \text{ Y:} [-6, -5]
Found Entropy: 0
\langle \text{Window: 89} \rangle \text{ X: [ -20 , -19 ] Y: [ -5 , -4 ]}
Found Entropy: 0
\langle \text{Window: } 90 \rangle \ \text{X:} [ -20 , -19 ] \ \text{Y:} [ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 91 \rangle \ \text{X:[} -20 \ , -19 \ ] \ \text{Y:[} -3 \ , -2 \ ]
Found Entropy: 0
<Window: 92 > X:[ -20 , -19 ] Y:[ -2 , -1 ]
Found Entropy: 0
\langle \text{Window: 93} \rangle \text{ X: [ -20 , -19 ] Y: [ -1 , 0 ]}
Found Entropy: 0
<Window: 94 > X:[ -20 , -19 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 95 > X:[ -20 , -19 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 96 > X:[ -20 , -19 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 97 > X:[ -20 , -19 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 98 > X:[ -20 , -19 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: 99} \rangle \text{ X:} [-19, -18] \text{ Y:} [-9, -8]
Found Entropy: 0
\langle \text{Window}: 100 \rangle X: [-19, -18] Y: [-8, -7]
Found a sample of class: 2
Found Entropy: 0.0
\langle \text{Window: } 101 \rangle \text{ X:[} -19 , -18 ] \text{ Y:[} -7 , -6 ]
```

```
Found Entropy: 0
\langle \text{Window}: 102 \rangle X: [-19, -18] Y: [-6, -5]
Found a sample of class: 0
Found Entropy: 0.0
\{Window: 103 > X:[-19, -18] Y:[-5, -4]
Found Entropy: 0
\langle \text{Window}: 104 \rangle X: [-19, -18] Y: [-4, -3]
Found Entropy: 0
\{Window: 105 > X:[-19, -18] Y:[-3, -2]
Found Entropy: 0
\langle \text{Window}: 106 \rangle X: [-19, -18] Y: [-2, -1]
Found Entropy: 0
<Window: 107 > X:[ -19 , -18 ] Y:[ -1 , 0 ]
Found Entropy: 0
\langle \text{Window: } 108 \rangle \ \text{X:[} -19 \ , -18 \ ] \ \text{Y:[} 0 \ , 1 \ ]
Found Entropy: 0
\langle \text{Window: } 109 \rangle \ \text{X:[} -19 \ , -18 \ ] \ \text{Y:[} 1 \ , 2 \ ]
Found Entropy: 0
<Window: 110 > X:[ -19 , -18 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 111 > X:[ -19 , -18 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 112 > X:[ -19 , -18 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 113 > X:[ -18 , -17 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 114 > X:[ -18 , -17 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 115 > X:[ -18 , -17 ] Y:[ -7 , -6 ]
Found Entropy: 0
\langle \text{Window}: 116 \rangle X: [-18, -17] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window: } 117 \rangle \text{ X:[} -18 , -17 ] \text{ Y:[} -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 118 \rangle X: [-18, -17] Y: [-4, -3]
Found Entropy: 0
<Window: 119 > X:[ -18 , -17 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window}: 120 \rangle X: [-18, -17] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window: } 121 \rangle \ \text{X:[} -18 \ , -17 \ ] \ \text{Y:[} -1 \ , 0 \ ]
Found Entropy: 0
<Window: 122 > X:[ -18 , -17 ] Y:[ 0 , 1 ]
Found Entropy: 0
\forall 123 > X:[-18, -17] Y:[1, 2]
Found Entropy: 0
\forall \text{Window: } 124 > X:[-18, -17] Y:[2, 3]
Found Entropy: 0
```

```
\langle \text{Window: } 125 \rangle X: [ -18 , -17 ] Y: [ 3 , 4 ]
Found Entropy: 0
\langle \text{Window}: 126 \rangle X: [-18, -17] Y: [4, 5]
Found Entropy: 0
\{Window: 127 > X:[-17, -16] Y:[-9, -8]
Found Entropy: 0
<Window: 128 > X:[ -17 , -16 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window}: 129 \rangle X: [-17, -16] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 130 \rangle X: [-17, -16] Y: [-6, -5]
Found Entropy: 0
<Window: 131 > X:[ -17 , -16 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window: } 132 \rangle \text{ X:[} -17 , -16 ] \text{ Y:[} -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 133 \rangle \ \text{X:[} -17 \ , -16 \ ] \ \text{Y:[} -3 \ , -2 \ ]
Found Entropy: 0
<Window: 134 > X:[ -17 , -16 ] Y:[ -2 , -1 ]
Found Entropy: 0
\langle \text{Window}: 135 \rangle X: [-17, -16] Y: [-1, 0]
Found Entropy: 0
<Window: 136 > X:[ -17 , -16 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window: } 137 \rangle \ \text{X:[} -17 \ , -16 \ ] \ \text{Y:[} 1 \ , 2 \ ]
Found Entropy: 0
\langle \text{Window: } 138 \rangle \ \text{X:[} -17 \ , -16 \ ] \ \text{Y:[} 2 \ , 3 \ ]
Found Entropy: 0
<Window: 139 > X:[ -17 , -16 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 140 > X:[ -17 , -16 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 141 \rangle \ \text{X:[} -16 \ , -15 \ ] \ \text{Y:[} -9 \ , -8 \ ]
Found Entropy: 0
\langle \text{Window}: 142 \rangle X: [-16, -15] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 143 \rangle X: [-16, -15] Y: [-7, -6]
Found Entropy: 0
<Window: 144 > X:[ -16 , -15 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 145 > X:[ -16 , -15 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 146 > X:[ -16 , -15 ] Y:[ -4 , -3 ]
Found Entropy: 0
\forall Window: 147 > X:[ -16 , -15 ] Y:[ -3 , -2 ]
Found Entropy: 0
\forall \text{Window: } 148 > X:[-16, -15] Y:[-2, -1]
Found Entropy: 0
```

```
<Window: 149 > X:[ -16 , -15 ] Y:[ -1 , 0 ]
Found Entropy: 0
\langle \text{Window: } 150 \rangle \text{ X:[} -16 , -15 ] \text{ Y:[} 0 , 1 ]
Found Entropy: 0
<Window: 151 > X:[ -16 , -15 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 152 > X:[ -16 , -15 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 153 > X:[ -16 , -15 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window}: 154 \rangle X: [-16, -15] Y: [4, 5]
Found Entropy: 0
\langle \text{Window}: 155 \rangle X: [-15, -14] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 156 \rangle X: [-15, -14] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 157 \rangle X: [-15, -14] Y: [-7, -6]
Found Entropy: 0
<Window: 158 > X:[ -15 , -14 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 159 > X:[ -15 , -14 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 160 \rangle X: [-15, -14] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 161 \rangle X: [-15, -14] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 162 \rangle X: [-15, -14] Y: [-2, -1]
Found Entropy: 0
<Window: 163 > X:[ -15 , -14 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 164 > X:[ -15 , -14 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 165 > X:[ -15 , -14 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 166 > X:[ -15 , -14 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 167 > X:[ -15 , -14 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 168 > X:[ -15 , -14 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 169 > X:[ -14 , -13 ] Y:[ -9 , -8 ]
Found Entropy: 0
\forall 170 > X:[-14, -13] Y:[-8, -7]
Found Entropy: 0
\forall X: [-14, -13] Y: [-7, -6]
Found Entropy: 0
\forall 172 > X:[-14, -13] Y:[-6, -5]
Found Entropy: 0
```

```
\forall 173 > X:[-14, -13] Y:[-5, -4]
Found Entropy: 0
\forall \text{Window: } 174 > X:[-14, -13] Y:[-4, -3]
Found Entropy: 0
\langle \text{Window}: 175 \rangle X: [-14, -13] Y: [-3, -2]
Found Entropy: 0
\{Window: 176 > X: [ -14 , -13 ] Y: [ -2 , -1 ] 
Found Entropy: 0
<Window: 177 > X:[ -14 , -13 ] Y:[ -1 , 0 ]
Found Entropy: 0
\langle \text{Window}: 178 \rangle X: [-14, -13] Y: [0, 1]
Found Entropy: 0
<Window: 179 > X:[ -14 , -13 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window: } 180 \rangle \ \text{X:[} -14 \ , -13 \ ] \ \text{Y:[} 2 \ , 3 \ ]
Found Entropy: 0
\langle \text{Window: } 181 \rangle \ \text{X:[} -14 \ , -13 \ ] \ \text{Y:[} 3 \ , 4 \ ]
Found Entropy: 0
<Window: 182 > X:[ -14 , -13 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 183 \rangle X: [-13, -12] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window: } 184 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} -8 \ , -7 \ ]
Found Entropy: 0
\langle \text{Window: } 185 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} -7 \ , -6 \ ]
Found Entropy: 0
\langle \text{Window: } 186 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} -6 \ , -5 \ ]
Found Entropy: 0
\forall Window: 187 > X:[ -13 , -12 ] Y:[ -5 , -4 ]
Found Entropy: 0
\forall Window: 188 > X:[ -13 , -12 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 189 \rangle \ \text{X:[} -13 , -12 \ ] \ \text{Y:[} -3 , -2 \ ]
Found Entropy: 0
\langle \text{Window}: 190 \rangle X: [-13, -12] Y: [-2, -1]
Found Entropy: 0
\{Window: 191 > X:[ -13 , -12 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 192 > X:[ -13 , -12 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 193 > X:[ -13 , -12 ] Y:[ 1 , 2 ]
Found Entropy: 0
\forall 194 > X:[-13, -12] Y:[2, 3]
Found Entropy: 0
\langle \text{Window: } 195 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} 3 \ , 4 \ ]
Found Entropy: 0
<Window: 196 > X:[ -13 , -12 ] Y:[ 4 , 5 ]
Found Entropy: 0
```

```
\forall \text{Window: } 197 > X:[-12, -11] Y:[-9, -8]
Found Entropy: 0
\forall \text{Window: } 198 > X:[-12, -11] Y:[-8, -7]
Found Entropy: 0
\{Window: 199 \} X: [ -12 , -11 ] Y: [ -7 , -6 ]
Found Entropy: 0
<Window: 200 > X:[ -12 , -11 ] Y:[ -6 , -5 ]
Found Entropy: 0
\{Window: 201 > X:[-12, -11] Y:[-5, -4]
Found Entropy: 0
\langle \text{Window}: 202 \rangle X: [-12, -11] Y: [-4, -3]
Found Entropy: 0
<Window: 203 > X:[ -12 , -11 ] Y:[ -3 , -2 ]
Found Entropy: 0
\forall \text{Window: } 204 > X:[-12, -11] Y:[-2, -1]
Found Entropy: 0
\langle \text{Window}: 205 \rangle X:[-12, -11] Y:[-1, 0]
Found Entropy: 0
<Window: 206 > X:[ -12 , -11 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 207 > X:[ -12 , -11 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window: } 208 \rangle \ \text{X:[} -12 \ , -11 \ ] \ \text{Y:[} 2 \ , 3 \ ]
Found Entropy: 0
\langle \text{Window: } 209 \rangle \ X: [ -12 , -11 ] \ Y: [ 3 , 4 ]
Found Entropy: 0
\langle \text{Window}: 210 \rangle X: [-12, -11] Y: [4, 5]
Found Entropy: 0
\langle Window: 211 \rangle X:[-11, -10] Y:[-9, -8]
Found Entropy: 0
\langle \text{Window}: 212 \rangle X: [-11, -10] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 213 \rangle X: [-11, -10] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 214 \rangle X: [-11, -10] Y: [-6, -5]
Found Entropy: 0
\{Window: 215 > X:[-11, -10] Y:[-5, -4]
Found Entropy: 0
<Window: 216 > X:[ -11 , -10 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 217 > X:[ -11 , -10 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 218 > X:[ -11 , -10 ] Y:[ -2 , -1 ]
Found Entropy: 0
\forall X:[-11, -10] Y:[-1, 0]
Found Entropy: 0
\langle \text{Window: } 220 \rangle X:[-11, -10] Y:[0, 1]
Found Entropy: 0
```

```
\langle \text{Window: } 221 \rangle X:[-11, -10] Y:[1, 2]
Found Entropy: 0
\langle \text{Window: } 222 \rangle X:[-11, -10] Y:[2, 3]
Found Entropy: 0
\langle \text{Window}: 223 \rangle X: [-11, -10] Y: [3, 4]
Found Entropy: 0
<Window: 224 > X:[ -11 , -10 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 225 \rangle X: [-10, -9] Y: [-9, -8]
Found Entropy: 0
<Window: 226 > X:[ -10 , -9 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window: } 227 \rangle \text{ X:[} -10 , -9 ] \text{ Y:[} -7 , -6 ]
Found Entropy: 0
\langle \text{Window}: 228 \rangle X: [-10, -9] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 229 \rangle X:[-10, -9] Y:[-5, -4]
Found Entropy: 0
\langle \text{Window}: 230 \rangle X: [-10, -9] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 231 \rangle X: [-10, -9] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window: } 232 \rangle \text{ X:[} -10 , -9 ] \text{ Y:[} -2 , -1 ]
Found Entropy: 0
\langle \text{Window}: 233 \rangle X: [-10, -9] Y: [-1, 0]
Found Entropy: 0
<Window: 234 > X:[ -10 , -9 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 235 > X:[ -10 , -9 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 236 > X:[ -10 , -9 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 237 > X:[ -10 , -9 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 238 > X:[ -10 , -9 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 239 \rangle X: [-9, -8] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 240 \rangle X: [-9, -8] Y: [-8, -7]
Found Entropy: 0
<Window: 241 > X:[ -9 , -8 ] Y:[ -7 , -6 ]
Found Entropy: 0
\langle \text{Window: } 242 \rangle \ \text{X:[} -9 \ , -8 \ ] \ \text{Y:[} -6 \ , -5 \ ]
Found Entropy: 0
<Window: 243 > X:[ -9 , -8 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 244 > X:[ -9 , -8 ] Y:[ -4 , -3 ]
Found Entropy: 0
```

```
\langle \text{Window}: 245 \rangle X: [-9, -8] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 246 \rangle X: [-9, -8] Y: [-2, -1]
Found Entropy: 0
\{\text{Window: } 247 > \text{X:} [-9, -8] \text{ Y:} [-1, 0]
Found Entropy: 0
\langle \text{Window}: 248 \rangle X: [-9, -8] Y: [0, 1]
Found Entropy: 0
\langle \text{Window}: 249 \rangle X: [-9, -8] Y: [1, 2]
Found Entropy: 0
<Window: 250 > X:[ -9 , -8 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 251 > X:[ -9 , -8 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window}: 252 \rangle X:[-9, -8] Y:[4, 5]
Found Entropy: 0
\langle \text{Window}: 253 \rangle X: [-8, -7] Y: [-9, -8]
Found Entropy: 0
<Window: 254 > X:[ -8 , -7 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window}: 255 \rangle X: [-8, -7] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 256 \rangle X: [-8, -7] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 257 \rangle X: [-8, -7] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 258 \rangle X: [-8, -7] Y: [-4, -3]
Found Entropy: 0
<Window: 259 > X:[ -8 , -7 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window}: 260 \rangle X: [-8, -7] Y: [-2, -1]
Found Entropy: 0
<Window: 261 > X:[-8, -7] Y:[-1, 0]
Found Entropy: 0
\langle \text{Window}: 262 \rangle X: [-8, -7] Y: [0, 1]
Found Entropy: 0
<Window: 263 > X:[ -8 , -7 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window}: 264 \rangle X: [-8, -7] Y: [2, 3]
Found Entropy: 0
<Window: 265 > X:[-8, -7] Y:[3, 4]
Found Entropy: 0
<Window: 266 > X:[ -8 , -7 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 267 > X:[ -7 , -6 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 268 > X:[ -7 , -6 ] Y:[ -8 , -7 ]
Found Entropy: 0
```

```
\langle \text{Window}: 269 \rangle X: [-7, -6] Y: [-7, -6]
Found Entropy: 0
\forall x = 100 \times 100 \times 100 \times 1000 \times 1000
Found Entropy: 0
\{Window: 271 > X:[ -7 , -6 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 272 \rangle X: [-7, -6] Y: [-4, -3]
Found Entropy: 0
\{Window: 273 > X: [ -7 , -6 ] Y: [ -3 , -2 ] 
Found Entropy: 0
<Window: 274 > X:[-7, -6] Y:[-2, -1]
Found Entropy: 0
<Window: 275 > X:[-7, -6] Y:[-1, 0]
Found Entropy: 0
<Window: 276 > X:[ -7 , -6 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 277 \rangle X:[-7,-6] Y:[1,2]
Found Entropy: 0
\forall X: [-7, -6] Y: [2, 3]
Found Entropy: 0
\forall X:[-7,-6] Y:[3,4]
Found Entropy: 0
<Window: 280 > X:[ -7 , -6 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 281 \rangle \ \text{X:[} -6 \ , -5 \ ] \ \text{Y:[} -9 \ , -8 \ ]
Found Entropy: 0
\langle \text{Window: } 282 \rangle \text{ X:} [ -6 , -5 ] \text{ Y:} [ -8 , -7 ]
Found Entropy: 0
<Window: 283 > X:[ -6 , -5 ] Y:[ -7 , -6 ]
Found Entropy: 0
\langle \text{Window: } 284 \rangle \ \text{X:[} -6 \ , -5 \ ] \ \text{Y:[} -6 \ , -5 \ ]
Found Entropy: 0
\langle \text{Window: } 285 \rangle X: [-6, -5] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 286 \rangle X: [-6, -5] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 287 \rangle X: [-6, -5] Y: [-3, -2]
Found Entropy: 0
\{Window: 288 \} X: [ -6 , -5 ] Y: [ -2 , -1 ]
Found Entropy: 0
\{Window: 289 \} X:[ -6 , -5 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 290 > X:[ -6 , -5 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 291 > X:[ -6 , -5 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 292 > X:[ -6 , -5 ] Y:[ 2 , 3 ]
Found Entropy: 0
```

```
<Window: 293 > X:[ -6 , -5 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 294 > X:[ -6 , -5 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 295 \rangle X: [-5, -4] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 296 \rangle X: [-5, -4] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 297 \rangle X: [-5, -4] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 298 \rangle X: [-5, -4] Y: [-6, -5]
Found Entropy: 0
<Window: 299 > X:[ -5 , -4 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 300 > X:[ -5 , -4 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 301 \rangle X: [-5, -4] Y: [-3, -2]
Found Entropy: 0
<Window: 302 > X:[ -5 , -4 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 303 > X:[ -5 , -4 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 304 > X:[ -5 , -4 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 305 \rangle X: [-5, -4] Y: [1, 2]
Found Entropy: 0
<Window: 306 > X:[ -5 , -4 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 307 > X:[ -5 , -4 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 308 > X:[ -5 , -4 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 309 \rangle \ \text{X:[} -4 , -3 \ ] \ \text{Y:[} -9 , -8 \ ]
Found Entropy: 0
\langle \text{Window}: 310 \rangle X: [-4, -3] Y: [-8, -7]
Found Entropy: 0
\{Window: 311 > X: [ -4 , -3 ] Y: [ -7 , -6 ] 
Found Entropy: 0
\langle \text{Window}: 312 \rangle X: [-4, -3] Y: [-6, -5]
Found Entropy: 0
<Window: 313 > X:[ -4 , -3 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 314 \rangle X: [-4, -3] Y: [-4, -3]
Found Entropy: 0
<Window: 315 > X:[ -4 , -3 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 316 > X:[ -4 , -3 ] Y:[ -2 , -1 ]
Found Entropy: 0
```

```
<Window: 317 > X:[-4, -3] Y:[-1, 0]
Found Entropy: 0
<Window: 318 > X:[ -4 , -3 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 319 \rangle X: [-4, -3] Y: [1, 2]
Found Entropy: 0
\langle \text{Window}: 320 \rangle X: [-4, -3] Y: [2, 3]
Found Entropy: 0
\langle \text{Window}: 321 \rangle X: [-4, -3] Y: [3, 4]
Found Entropy: 0
\langle \text{Window}: 322 \rangle X: [-4, -3] Y: [4, 5]
Found Entropy: 0
\langle \text{Window}: 323 \rangle X: [-3, -2] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 324 \rangle X:[-3, -2] Y:[-8, -7]
Found Entropy: 0
\langle \text{Window}: 325 \rangle X: [-3, -2] Y: [-7, -6]
Found Entropy: 0
<Window: 326 > X:[ -3 , -2 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 327 \rangle X: [-3, -2] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 328 \rangle X: [-3, -2] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 329 \rangle X: [-3, -2] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 330 \rangle X: [-3, -2] Y: [-2, -1]
Found Entropy: 0
<Window: 331 > X:[ -3 , -2 ] Y:[ -1 , 0 ]
Found Entropy: 0
\langle \text{Window}: 332 \rangle X: [-3, -2] Y: [0, 1]
Found Entropy: 0
\langle \text{Window}: 333 \rangle X: [-3, -2] Y: [1, 2]
Found Entropy: 0
\langle \text{Window}: 334 \rangle X: [-3, -2] Y: [2, 3]
Found Entropy: 0
\langle \text{Window}: 335 \rangle X: [-3, -2] Y: [3, 4]
Found Entropy: 0
\{\text{Window}: 336 > X: [-3, -2] Y: [4, 5]
Found Entropy: 0
<Window: 337 > X:[ -2 , -1 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 338 \rangle X: [-2, -1] Y: [-8, -7]
Found Entropy: 0
<Window: 339 > X:[ -2 , -1 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 340 > X:[ -2 , -1 ] Y:[ -6 , -5 ]
Found Entropy: 0
```

```
\langle \text{Window}: 341 \rangle X: [-2, -1] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 342 \rangle X: [-2, -1] Y: [-4, -3]
Found Entropy: 0
\{Window: 343 > X: [ -2 , -1 ] Y: [ -3 , -2 ] 
Found Entropy: 0
\langle \text{Window}: 344 \rangle X: [-2, -1] Y: [-2, -1]
Found Entropy: 0
<Window: 345 > X:[-2, -1] Y:[-1, 0]
Found Entropy: 0
<Window: 346 > X:[ -2 , -1 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 347 \rangle X:[-2,-1] Y:[1,2]
Found Entropy: 0
\langle \text{Window}: 348 \rangle X: [-2, -1] Y: [2, 3]
Found Entropy: 0
<Window: 349 > X:[ -2 , -1 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 350 > X:[-2, -1] Y:[4, 5]
Found Entropy: 0
<Window: 351 > X:[ -1 , 0 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window: } 352 \rangle \text{ X:} [-1, 0] \text{ Y:} [-8, -7]
Found Entropy: 0
<Window: 353 > X:[ -1 , 0 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 354 > X:[ -1 , 0 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 355 > X:[ -1 , 0 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 356 > X:[ -1 , 0 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 357 > X:[-1, 0] Y:[-3, -2]
Found Entropy: 0
\langle \text{Window}: 358 \rangle X: [-1, 0] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 359 \rangle X: [-1, 0] Y: [-1, 0]
Found Entropy: 0
<Window: 360 > X:[ -1 , 0 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 361 > X:[ -1 , 0 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window}: 362 \rangle X: [-1, 0] Y: [2, 3]
Found Entropy: 0
<Window: 363 > X:[ -1 , 0 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 364 > X:[-1, 0] Y:[4, 5]
Found Entropy: 0
```

```
<Window: 365 > X:[ 0 , 1 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 366 > X:[ 0 , 1 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 367 > X:[ 0 , 1 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 368 > X:[ 0 , 1 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 369 > X:[ 0 , 1 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 370 \rangle X: [0, 1] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 371 \rangle X:[0,1] Y:[-3,-2]
Found Entropy: 0
\langle \text{Window}: 372 \rangle X:[0,1] Y:[-2,-1]
Found Entropy: 0
<Window: 373 > X:[0, 1] Y:[-1, 0]
Found Entropy: 0
<Window: 374 > X:[0, 1] Y:[0, 1]
Found Entropy: 0
<Window: 375 > X:[ 0 , 1 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 376 > X:[ 0 , 1 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 377 > X:[ 0 , 1 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 378 > X:[ 0 , 1 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 379 > X:[ 1 , 2 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 380 > X:[1,2] Y:[-8,-7]
Found Entropy: 0
\langle \text{Window}: 381 \rangle X: [1, 2] Y: [-7, -6]
Found Entropy: 0
<Window: 382 > X:[ 1 , 2 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 383 \rangle X: [1, 2] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 384 \rangle X: [1, 2] Y: [-4, -3]
Found Entropy: 0
<Window: 385 > X:[ 1 , 2 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window}: 386 \rangle X: [1, 2] Y: [-2, -1]
Found Entropy: 0
<Window: 387 > X:[ 1 , 2 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 388 > X:[ 1 , 2 ] Y:[ 0 , 1 ]
Found Entropy: 0
```

```
\langle \text{Window}: 389 \rangle X:[1,2] Y:[1,2]
Found Entropy: 0
<Window: 390 > X:[1,2] Y:[2,3]
Found Entropy: 0
\langle Window: 391 \rangle X:[1,2] Y:[3,4]
Found Entropy: 0
\{\text{Window: } 392 > X:[1,2] Y:[4,5]
Found Entropy: 0
\langle \text{Window}: 393 \rangle X: [2, 3] Y: [-9, -8]
Found Entropy: 0
<Window: 394 > X:[ 2 , 3 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 395 > X:[ 2 , 3 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 396 > X:[ 2 , 3 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 397 > X:[ 2 , 3 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 398 > X:[ 2 , 3 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 399 \rangle X: [2, 3] Y: [-3, -2]
Found Entropy: 0
<Window: 400 > X:[ 2 , 3 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 401 > X:[ 2 , 3 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 402 > X:[2,3] Y:[0,1]
Found Entropy: 0
<Window: 403 > X:[ 2 , 3 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 404 > X:[2,3] Y:[2,3]
Found Entropy: 0
<Window: 405 > X:[2,3] Y:[3,4]
Found Entropy: 0
<Window: 406 > X:[ 2 , 3 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 407 > X:[3, 4] Y:[-9, -8]
Found Entropy: 0
<Window: 408 > X:[3, 4] Y:[-8, -7]
Found Entropy: 0
<Window: 409 > X:[3, 4] Y:[-7, -6]
Found Entropy: 0
<Window: 410 > X:[ 3 , 4 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 411 > X:[3, 4] Y:[-5, -4]
Found Entropy: 0
<Window: 412 > X:[3, 4] Y:[-4, -3]
Found Entropy: 0
```

```
\langle \text{Window}: 413 \rangle X: [3, 4] Y: [-3, -2]
Found Entropy: 0
\{Window: 414 > X:[3, 4] Y:[-2, -1]
Found Entropy: 0
<Window: 415 > X:[3, 4] Y:[-1, 0]
Found Entropy: 0
<Window: 416 > X:[ 3 , 4 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 417 > X:[ 3 , 4 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 418 > X:[ 3 , 4 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 419 > X:[3, 4] Y:[3, 4]
Found Entropy: 0
<Window: 420 > X:[3, 4] Y:[4, 5]
Found Entropy: 0
\langle \text{Window}: 421 \rangle X: [4, 5] Y: [-9, -8]
Found Entropy: 0
<Window: 422 > X:[4,5] Y:[-8,-7]
Found Entropy: 0
<Window: 423 > X:[ 4 , 5 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 424 > X:[ 4 , 5 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 425 > X:[ 4 , 5 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 426 > X:[ 4 , 5 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 427 \rangle X: [4, 5] Y: [-3, -2]
Found Entropy: 0
\{\text{Window: } 428 > X: [4, 5] Y: [-2, -1]
Found Entropy: 0
<Window: 429 > X:[ 4 , 5 ] Y:[ -1 , 0 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 430 > X:[ 4 , 5 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 431 > X:[ 4 , 5 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 432 > X:[ 4 , 5 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 433 > X:[ 4 , 5 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 434 > X:[ 4 , 5 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 435 > X:[5,6] Y:[-9,-8]
Found Entropy: 0
<Window: 436 > X:[5,6] Y:[-8,-7]
```

```
Found Entropy: 0
<Window: 437 > X:[5,6] Y:[-7,-6]
Found Entropy: 0
<Window: 438 > X:[5,6]Y:[-6,-5]
Found Entropy: 0
<Window: 439 > X:[5,6] Y:[-5,-4]
Found Entropy: 0
<Window: 440 > X:[5,6] Y:[-4,-3]
Found Entropy: 0
\langle \text{Window}: 441 \rangle X: [5, 6] Y: [-3, -2]
Found Entropy: 0
<Window: 442 > X:[5,6] Y:[-2,-1]
Found Entropy: 0
<Window: 443 > X:[5,6] Y:[-1,0]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.6365141682948128
<Window: 444 > X:[5,6] Y:[0,1]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 445 > X:[ 5 , 6 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 446 > X:[ 5 , 6 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 447 > X:[5,6] Y:[3,4]
Found Entropy: 0
<Window: 448 > X:[5,6] Y:[4,5]
Found Entropy: 0
<Window: 449 > X:[ 6 , 7 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 450 > X:[ 6 , 7 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 451 > X:[6,7] Y:[-7,-6]
Found Entropy: 0
<Window: 452 > X:[ 6 , 7 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 453 > X:[6, 7] Y:[-5, -4]
Found Entropy: 0
<Window: 454 > X:[6, 7] Y:[-4, -3]
Found Entropy: 0
<Window: 455 > X:[ 6 , 7 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 456 > X:[6,7] Y:[-2,-1]
Found Entropy: 0
<Window: 457 > X:[6,7] Y:[-1,0]
Found a sample of class: 0
```

```
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 1.0986122886681096
<Window: 458 > X:[6,7] Y:[0,1]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.6365141682948128
<Window: 459 > X:[6, 7] Y:[1, 2]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 460 > X:[6, 7] Y:[2, 3]
Found Entropy: 0
<Window: 461 > X:[ 6 , 7 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 462 > X:[6,7] Y:[4,5]
Found Entropy: 0
<Window: 463 > X:[ 7 , 8 ] Y:[ -9 , -8 ]
Found Entropy: 0
\{\text{Window: } 464 > X:[7,8] Y:[-8,-7]
Found Entropy: 0
<Window: 465 > X:[ 7 , 8 ] Y:[ -7 , -6 ]
Found Entropy: 0
\{\text{Window: } 466 > X:[7,8] Y:[-6,-5]
Found Entropy: 0
<Window: 467 > X:[7,8] Y:[-5,-4]
Found Entropy: 0
<Window: 468 > X:[ 7 , 8 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 469 > X:[ 7 , 8 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 470 > X:[ 7 , 8 ] Y:[ -2 , -1 ]
Found a sample of class: 1
Found Entropy: 0.0
\langle Window: 471 \rangle X:[7,8] Y:[-1,0]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
\{\text{Window: } 472 > X:[7,8] Y:[0,1]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 1.0397207708399179
<Window: 473 > X:[ 7 , 8 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 474 > X:[7,8] Y:[2,3]
Found Entropy: 0
```

```
<Window: 475 > X:[7,8] Y:[3,4]
Found Entropy: 0
<Window: 476 > X:[ 7 , 8 ] Y:[ 4 , 5 ]
Found Entropy: 0
\{\text{Window: } 477 > X:[8,9] Y:[-9,-8]
Found Entropy: 0
\langle Window: 478 \rangle X:[8,9] Y:[-8,-7]
Found Entropy: 0
<Window: 479 > X:[8,9] Y:[-7,-6]
Found Entropy: 0
\langle Window: 480 \rangle X: [8, 9] Y: [-6, -5]
Found Entropy: 0
\langle Window: 481 \rangle X: [8, 9] Y: [-5, -4]
Found Entropy: 0
<Window: 482 > X:[8,9] Y:[-4,-3]
Found Entropy: 0
<Window: 483 > X:[8,9] Y:[-3,-2]
Found Entropy: 0
\{\text{Window: } 484 > X: [8, 9] Y: [-2, -1]
Found Entropy: 0
<Window: 485 > X:[8, 9] Y:[-1, 0]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.6365141682948128
<Window: 486 > X:[8, 9] Y:[0, 1]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 487 > X:[8, 9] Y:[1, 2]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 488 > X:[8,9] Y:[2,3]
Found Entropy: 0
<Window: 489 > X:[ 8 , 9 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 490 > X:[8, 9] Y:[4, 5]
Found Entropy: 0
<Window: 491 > X:[9, 10] Y:[-9, -8]
Found Entropy: 0
\forall 1000 : 492 > X:[9, 10] Y:[-8, -7]
Found Entropy: 0
<Window: 493 > X:[ 9 , 10 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 494 > X:[9, 10] Y:[-6, -5]
Found Entropy: 0
<Window: 495 > X:[ 9 , 10 ] Y:[ -5 , -4 ]
Found Entropy: 0
```

```
<Window: 496 > X:[ 9 , 10 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 497 > X:[ 9 , 10 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 498 > X:[9, 10] Y:[-2, -1]
Found Entropy: 0
<Window: 499 > X:[ 9 , 10 ] Y:[ -1 , 0 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 500 > X:[ 9 , 10 ] Y:[ 0 , 1 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 501 > X:[ 9 , 10 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 502 > X:[ 9 , 10 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.6931471805599453
<Window: 503 > X:[ 9 , 10 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 504 > X:[ 9 , 10 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 505 > X:[ 10 , 11 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 506 > X:[ 10 , 11 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 507 > X:[ 10 , 11 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 508 > X:[ 10 , 11 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 509 > X:[ 10 , 11 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window: 510} \rangle X: [10, 11] Y: [-4, -3]
Found Entropy: 0
<Window: 511 > X:[ 10 , 11 ] Y:[ -3 , -2 ]
Found Entropy: 0
\{Window: 512 > X:[10, 11] Y:[-2, -1]
Found Entropy: 0
<Window: 513 > X:[ 10 , 11 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 514 > X:[10, 11] Y:[0, 1]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.6931471805599453
<Window: 515 > X:[ 10 , 11 ] Y:[ 1 , 2 ]
Found a sample of class: 0
```

```
Found Entropy: 0.0
<Window: 516 > X:[ 10 , 11 ] Y:[ 2 , 3 ]
Found Entropy: 0
\forall X:[10, 11] Y:[3, 4]
Found Entropy: 0
<Window: 518 > X:[ 10 , 11 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 519 > X:[ 11 , 12 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 520 > X:[ 11 , 12 ] Y:[ -8 , -7 ]
Found Entropy: 0
\forall X:[11, 12] Y:[-7, -6]
Found Entropy: 0
<Window: 522 > X:[ 11 , 12 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 523 > X:[ 11 , 12 ] Y:[ -5 , -4 ]
Found Entropy: 0
\forall x \in X : [11, 12] Y : [-4, -3]
Found Entropy: 0
<Window: 525 > X:[ 11 , 12 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 526 > X:[ 11 , 12 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 527 > X:[ 11 , 12 ] Y:[ -1 , 0 ]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
<Window: 528 > X:[ 11 , 12 ] Y:[ 0 , 1 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 529 > X:[ 11 , 12 ] Y:[ 1 , 2 ]
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.6931471805599453
<Window: 530 > X:[ 11 , 12 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 531 > X:[ 11 , 12 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 532 > X:[ 11 , 12 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: 533} \rangle X: [12, 13] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window: } 534 \rangle \text{ X:[ } 12 \text{ , } 13 \text{ ] } \text{ Y:[ } -8 \text{ , } -7 \text{ ]}
Found Entropy: 0
\langle \text{Window: 535} \rangle X: [12, 13] Y: [-7, -6]
```

```
Found Entropy: 0
<Window: 536 > X:[ 12 , 13 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 537 > X:[ 12 , 13 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 538 > X:[ 12 , 13 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 539 \rangle \ \text{X:} [ 12 , 13 ] \ \text{Y:} [ -3 , -2 ]
Found Entropy: 0
\langle \text{Window}: 540 \rangle X: [12, 13] Y: [-2, -1]
Found Entropy: 0
<Window: 541 > X:[ 12 , 13 ] Y:[ -1 , 0 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 542 > X:[ 12 , 13 ] Y:[ 0 , 1 ]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 1.0986122886681096
<Window: 543 > X:[ 12 , 13 ] Y:[ 1 , 2 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 544 > X:[ 12 , 13 ] Y:[ 2 , 3 ]
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 0.6931471805599453
<Window: 545 > X:[ 12 , 13 ] Y:[ 3 , 4 ]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.5623351446188083
<Window: 546 > X:[ 12 , 13 ] Y:[ 4 , 5 ]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.6365141682948128
<Window: 547 > X:[ 13 , 14 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 548 > X:[ 13 , 14 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window: 549} \rangle X: [13, 14] Y: [-7, -6]
Found Entropy: 0
<Window: 550 > X:[ 13 , 14 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 551 \rangle X: [13, 14] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 552 \rangle X: [13, 14] Y: [-4, -3]
```

```
Found Entropy: 0
<Window: 553 > X:[ 13 , 14 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 554 > X:[ 13 , 14 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 555 > X:[ 13 , 14 ] Y:[ -1 , 0 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 556 > X:[ 13 , 14 ] Y:[ 0 , 1 ]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
<Window: 557 > X:[ 13 , 14 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 558 > X:[ 13 , 14 ] Y:[ 2 , 3 ]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 1.0986122886681096
<Window: 559 > X:[ 13 , 14 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 560 > X:[ 13 , 14 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 561 > X:[ 14 , 15 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 562 > X:[ 14 , 15 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 563 > X:[ 14 , 15 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 564 > X:[ 14 , 15 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 565 > X:[14, 15] Y:[-5, -4]
Found Entropy: 0
<Window: 566 > X:[ 14 , 15 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 567 \rangle X: [14, 15] Y: [-3, -2]
Found Entropy: 0
<Window: 568 > X:[ 14 , 15 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 569 > X:[ 14 , 15 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 570 > X:[ 14 , 15 ] Y:[ 0 , 1 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 571 > X:[ 14 , 15 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 572 > X:[ 14 , 15 ] Y:[ 2 , 3 ]
Found Entropy: 0
```

```
<Window: 573 > X:[ 14 , 15 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 574 > X:[ 14 , 15 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 575 > X:[ 15 , 16 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 576 > X:[ 15 , 16 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 577 > X:[ 15 , 16 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 578 > X:[ 15 , 16 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 579 > X:[ 15 , 16 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 580 > X:[ 15 , 16 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: 581} \rangle \text{ X:[ 15 , 16 ] Y:[ -3 , -2 ]}
Found Entropy: 0
<Window: 582 > X:[ 15 , 16 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 583 > X:[ 15 , 16 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 584 > X:[ 15 , 16 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 585 > X:[ 15 , 16 ] Y:[ 1 , 2 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 586 > X:[ 15 , 16 ] Y:[ 2 , 3 ]
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 587 > X:[ 15 , 16 ] Y:[ 3 , 4 ]
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 588 > X:[ 15 , 16 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 589 > X:[ 16 , 17 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 590 > X:[ 16 , 17 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window: 591} \rangle \text{ X:[ 16 , 17 ] Y:[ -7 , -6 ]}
Found Entropy: 0
<Window: 592 > X:[ 16 , 17 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 593 > X:[ 16 , 17 ] Y:[ -5 , -4 ]
Found Entropy: 0
```

```
<Window: 594 > X:[ 16 , 17 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 595 > X:[ 16 , 17 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window}: 596 \rangle X: [16, 17] Y: [-2, -1]
Found Entropy: 0
<Window: 597 > X:[ 16 , 17 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 598 > X:[ 16 , 17 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 599 > X:[ 16 , 17 ] Y:[ 1 , 2 ]
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 600 > X:[ 16 , 17 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 601 > X:[ 16 , 17 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.6365141682948128
<Window: 602 > X:[ 16 , 17 ] Y:[ 4 , 5 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 603 > X:[ 17 , 18 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 604 > X:[ 17 , 18 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 605 > X:[ 17 , 18 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 606 > X:[ 17 , 18 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 607 > X:[ 17 , 18 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window: } 608 \rangle \ \text{X:} [ 17 , 18 ] \ \text{Y:} [ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 609 \rangle \ \text{X:} [ 17 , 18 ] \ \text{Y:} [ -3 , -2 ]
Found Entropy: 0
\langle \text{Window: } 610 \rangle \text{ X:} [17, 18] \text{ Y:} [-2, -1]
Found Entropy: 0
<Window: 611 > X:[ 17 , 18 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 612 > X:[ 17 , 18 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 613 > X:[ 17 , 18 ] Y:[ 1 , 2 ]
Found a sample of class: 2
Found a sample of class: 2
```

```
Found Entropy: 0.0
<Window: 614 > X:[ 17 , 18 ] Y:[ 2 , 3 ]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 615 > X:[ 17 , 18 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 616 > X:[ 17 , 18 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 617 \rangle \text{ X:} [ 18 , 19 ] \text{ Y:} [ -9 , -8 ]
Found Entropy: 0
<Window: 618 > X:[ 18 , 19 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window: 619} \rangle X: [18, 19] Y: [-7, -6]
Found Entropy: 0
\{Window: 620 > X:[ 18 , 19 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 621 > X:[ 18 , 19 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window: } 622 \rangle \text{ X:} [ 18 , 19 ] \text{ Y:} [ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 623 \rangle \text{ X:} [ 18 , 19 ] \text{ Y:} [ -3 , -2 ]
Found Entropy: 0
\langle \text{Window: } 624 \rangle \text{ X:} [ 18 , 19 ] \text{ Y:} [ -2 , -1 ]
Found Entropy: 0
<Window: 625 > X:[ 18 , 19 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 626 > X:[ 18 , 19 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 627 > X:[ 18 , 19 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 628 > X:[ 18 , 19 ] Y:[ 2 , 3 ]
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 629 > X:[ 18 , 19 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 1.0986122886681096
<Window: 630 > X:[ 18 , 19 ] Y:[ 4 , 5 ]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
\langle \text{Window: } 631 \rangle \ \text{X:} [ 19 , 20 ] \ \text{Y:} [ -9 , -8 ]
```

```
Found Entropy: 0
<Window: 632 > X:[ 19 , 20 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 633 > X:[ 19 , 20 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 634 > X:[ 19 , 20 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 635 \rangle \text{ X:} [19, 20] \text{ Y:} [-5, -4]
Found Entropy: 0
\langle \text{Window}: 636 \rangle X: [19, 20] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window: } 637 \rangle \text{ X:} [ 19 , 20 ] \text{ Y:} [ -3 , -2 ]
Found Entropy: 0
<Window: 638 > X:[ 19 , 20 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 639 > X:[ 19 , 20 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 640 > X:[ 19 , 20 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 641 > X:[ 19 , 20 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 642 > X:[ 19 , 20 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 643 > X:[ 19 , 20 ] Y:[ 3 , 4 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 644 > X:[ 19 , 20 ] Y:[ 4 , 5 ]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.9502705392332347
\{\text{Window: } 645 > X: [20, 21] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window: 646} \rangle \text{ X:[ 20, 21] Y:[ -8, -7]}
Found Entropy: 0
\langle \text{Window: } 647 \rangle \text{ X:[ } 20 \text{ , } 21 \text{ ] } \text{ Y:[ } -7 \text{ , } -6 \text{ ]}
Found Entropy: 0
\langle \text{Window: } 648 \rangle \ \text{X:[ } 20 \ , \ 21 \ ] \ \text{Y:[ } -6 \ , \ -5 \ ]
Found Entropy: 0
<Window: 649 > X:[ 20 , 21 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 650 > X:[ 20 , 21 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 651 \rangle \ \text{X:} [ 20 , 21 ] \ \text{Y:} [ -3 , -2 ]
Found Entropy: 0
\langle \text{Window: } 652 \rangle \text{ X:} [ 20 , 21 ] \text{ Y:} [ -2 , -1 ]
```

```
Found Entropy: 0
<Window: 653 > X:[ 20 , 21 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 654 > X:[20, 21] Y:[0, 1]
Found Entropy: 0
<Window: 655 > X:[ 20 , 21 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 656 > X:[ 20 , 21 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 657 > X:[ 20 , 21 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 658 > X:[ 20 , 21 ] Y:[ 4 , 5 ]
Found a sample of class: 1
Found Entropy: 0.0
Total Count: 658
Expected Count: 658
OKAY: True
----Done--- 23.214193363079715
Done!
-26 21 -9 5
You Can use this matrix now.
X_{min} = -26
X_max= 21
Y_min = -9
Y_{max} = 5
And the Matrix Shape: 47 * 14
\langle \text{Window: 1} \rangle X:[-26, -25] Y:[-9, -8]
Found Entropy: 0
\langle \text{Window: 2} \rangle \text{ X:[-26,-25] Y:[-8,-7]}
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6931471805599453
\langle \text{Window}: 3 \rangle X: [-26, -25] Y: [-7, -6]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.5623351446188083
\{\text{Window: 4 > X:[-26,-25] Y:[-6,-5]}
Found Entropy: 0
\langle \text{Window}: 5 \rangle X: [-26, -25] Y: [-5, -4]
Found Entropy: 0
<Window: 6 > X:[ -26 , -25 ] Y:[ -4 , -3 ]
Found Entropy: 0
\forall x \in X : [-26, -25] Y : [-3, -2]
Found Entropy: 0
```

```
\langle \text{Window: 8 > X:[-26,-25] Y:[-2,-1]}
Found Entropy: 0
\{\text{Window: 9 > X:[-26,-25] Y:[-1,0]}
Found Entropy: 0
\langle \text{Window}: 10 \rangle X: [-26, -25] Y: [0, 1]
Found Entropy: 0
<Window: 11 > X:[ -26 , -25 ] Y:[ 1 , 2 ]
Found Entropy: 0
\{\text{Window: } 12 > \text{X:} [-26, -25] \text{ Y:} [2, 3]
Found Entropy: 0
\langle \text{Window}: 13 \rangle X: [-26, -25] Y: [3, 4]
Found Entropy: 0
<Window: 14 > X:[ -26 , -25 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 15 \rangle X: [-25, -24] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 16 \rangle X: [-25, -24] Y: [-8, -7]
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.6931471805599453
\langle \text{Window}: 17 > X:[-25, -24] Y:[-7, -6]
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 1.0397207708399179
\langle \text{Window}: 18 \rangle X: [-25, -24] Y: [-6, -5]
Found a sample of class: 0
Found Entropy: 0.0
\forall 19 > X:[-25, -24] Y:[-5, -4]
Found Entropy: 0
\langle \text{Window}: 20 \rangle X: [-25, -24] Y: [-4, -3]
Found Entropy: 0
\forall X: [-25, -24] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 22 \rangle X: [-25, -24] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window: } 23 \rangle \ \text{X:[} -25 \ , -24 \ ] \ \text{Y:[} -1 \ , \ 0 \ ]
Found Entropy: 0
<Window: 24 > X:[ -25 , -24 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 25 > X:[ -25 , -24 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 26 > X:[ -25 , -24 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 27 > X:[ -25 , -24 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window: 28} \rangle X: [-25, -24] Y: [4, 5]
```

```
Found Entropy: 0
\langle \text{Window: } 29 \rangle \text{ X:} [ -24 , -23 ] \text{ Y:} [ -9 , -8 ]
Found Entropy: 0
\{\text{Window: } 30 > \text{X:} [-24, -23] \text{ Y:} [-8, -7] \}
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6931471805599453
\langle \text{Window}: 31 \rangle X: [-24, -23] Y: [-7, -6]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.6931471805599453
\langle \text{Window}: 32 \rangle X: [-24, -23] Y: [-6, -5]
Found a sample of class: 0
Found Entropy: 0.0
\forall Window: 33 > X:[ -24 , -23 ] Y:[ -5 , -4 ]
Found Entropy: 0
\forall Window: 34 > X:[ -24 , -23 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 35 \rangle X: [-24, -23] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 36 \rangle X: [-24, -23] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 37 \rangle X: [-24, -23] Y: [-1, 0]
Found Entropy: 0
\langle \text{Window: } 38 \rangle \ \text{X:[} -24 , -23 \ ] \ \text{Y:[} 0 , 1 \ ]
Found Entropy: 0
<Window: 39 > X:[ -24 , -23 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 40 > X:[ -24 , -23 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 41 > X:[ -24 , -23 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window}: 42 \rangle X: [-24, -23] Y: [4, 5]
Found Entropy: 0
<Window: 43 > X:[-23, -22] Y:[-9, -8]
Found Entropy: 0
\{\text{Window: } 44 > \text{X:} [-23, -22] \text{ Y:} [-8, -7] \}
Found a sample of class: 2
Found Entropy: 0.0
\langle \text{Window}: 45 \rangle X: [-23, -22] Y: [-7, -6]
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 1.0397207708399179
\{\text{Window: } 46 > \text{X:} [-23, -22] \text{ Y:} [-6, -5] \}
```

```
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.6931471805599453
\forall X: [-23, -22] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window: } 48 \rangle \ \text{X:[} -23 \ , -22 \ ] \ \text{Y:[} -4 \ , -3 \ ]
Found Entropy: 0
\langle \text{Window: } 49 \rangle \ \text{X:[} -23 , -22 \ ] \ \text{Y:[} -3 , -2 \ ]
Found Entropy: 0
\langle \text{Window}: 50 \rangle X: [-23, -22] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 51 \rangle X: [-23, -22] Y: [-1, 0]
Found Entropy: 0
<Window: 52 > X:[ -23 , -22 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 53 > X:[ -23 , -22 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 54 > X:[ -23 , -22 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 55 > X:[ -23 , -22 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 56 > X:[ -23 , -22 ] Y:[ 4 , 5 ]
Found Entropy: 0
\{Window: 57 > X:[ -22 , -21 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 58 \rangle X: [-22, -21] Y: [-8, -7]
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.6931471805599453
\forall x \in X : [-22, -21] Y : [-7, -6]
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 0.6931471805599453
\{Window: 60 \} X: [ -22 , -21 ] Y: [ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 61 \rangle \ \text{X:} [ -22 , -21 ] \ \text{Y:} [ -5 , -4 ]
Found Entropy: 0
\langle \text{Window: } 62 \rangle \text{ X: [ } -22 \text{ , } -21 \text{ ] } \text{ Y: [ } -4 \text{ , } -3 \text{ ]}
Found Entropy: 0
\langle \text{Window: } 63 \rangle \ \text{X:} [ -22 , -21 ] \ \text{Y:} [ -3 , -2 ]
Found Entropy: 0
\langle \text{Window}: 64 \rangle X: [-22, -21] Y: [-2, -1]
Found Entropy: 0
<Window: 65 > X:[ -22 , -21 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 66 > X:[ -22 , -21 ] Y:[ 0 , 1 ]
Found Entropy: 0
\{\text{Window: } 67 > X:[-22, -21] Y:[1, 2]
```

```
Found Entropy: 0
\langle \text{Window: 68} \rangle \ X: [-22, -21] \ Y: [2, 3]
Found Entropy: 0
<Window: 69 > X:[ -22 , -21 ] Y:[ 3 , 4 ]
Found Entropy: 0
\{\text{Window: 70} > \text{X:[-22,-21]} \text{Y:[4,5]}
Found Entropy: 0
\langle \text{Window: 71} \rangle \text{ X: [-21, -20] Y: [-9, -8]}
Found a sample of class: 2
Found Entropy: 0.0
\{\text{Window: 72} > \text{X:} [-21, -20] \text{ Y:} [-8, -7] \}
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 0.6365141682948128
\langle \text{Window}: 73 \rangle X: [-21, -20] Y: [-7, -6]
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6365141682948128
\langle \text{Window}: 74 \rangle X: [-21, -20] Y: [-6, -5]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
\langle \text{Window}: 75 \rangle X: [-21, -20] Y: [-5, -4]
Found Entropy: 0
\forall Window: 76 > X:[ -21 , -20 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 77 > X: [ -21 , -20 ] Y: [ -3 , -2 ]
Found Entropy: 0
\{Window: 78 > X:[ -21 , -20 ] Y:[ -2 , -1 ]
Found Entropy: 0
\langle \text{Window: 79} \rangle \ \text{X:[-21,-20]} \ \text{Y:[-1,0]}
Found Entropy: 0
\langle \text{Window: } 80 \rangle \text{ X: [} -21 , -20 ] \text{ Y: [} 0 , 1 ]
Found Entropy: 0
\langle \text{Window: 81} \rangle X: [-21, -20] Y: [1, 2]
Found Entropy: 0
<Window: 82 > X:[ -21 , -20 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 83 > X:[ -21 , -20 ] Y:[ 3 , 4 ]
Found Entropy: 0
\{\text{Window: 84} > \text{X:[-21,-20]} \text{Y:[4,5]}
Found Entropy: 0
\langle \text{Window: } 85 \rangle \text{ X: } [-20, -19] \text{ Y: } [-9, -8]
```

```
Found Entropy: 0
\langle \text{Window}: 86 \rangle X: [-20, -19] Y: [-8, -7]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 87 \rangle X: [-20, -19] Y: [-7, -6]
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 1.0397207708399179
\{Window: 88 > X:[ -20 , -19 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: 89} \rangle \text{ X: [ -20 , -19 ] Y: [ -5 , -4 ]}
Found Entropy: 0
\langle \text{Window: } 90 \rangle \text{ X: [ } -20 \text{ , } -19 \text{ ] } \text{ Y: [ } -4 \text{ , } -3 \text{ ]}
Found Entropy: 0
\langle \text{Window: } 91 \rangle \ \text{X:[} -20 \ , -19 \ ] \ \text{Y:[} -3 \ , -2 \ ]
Found Entropy: 0
\forall \text{Window: } 92 > X:[-20, -19] Y:[-2, -1]
Found Entropy: 0
\langle \text{Window}: 93 \rangle X: [-20, -19] Y: [-1, 0]
Found Entropy: 0
<Window: 94 > X:[ -20 , -19 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window: 95} \rangle X: [-20, -19] Y: [1, 2]
Found Entropy: 0
\langle \text{Window: 96} \rangle \text{ X:[-20,-19] Y:[2,3]}
Found Entropy: 0
<Window: 97 > X:[ -20 , -19 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 98 > X:[ -20 , -19 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: 99} \rangle \text{ X:} [-19, -18] \text{ Y:} [-9, -8]
Found Entropy: 0
\langle \text{Window}: 100 \rangle X: [-19, -18] Y: [-8, -7]
Found a sample of class: 2
Found Entropy: 0.0
\langle \text{Window: } 101 \rangle \ \text{X:[} -19 \ , -18 \ ] \ \text{Y:[} -7 \ , -6 \ ]
Found Entropy: 0
\langle \text{Window}: 102 \rangle X: [-19, -18] Y: [-6, -5]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window: } 103 \rangle \text{ X:[} -19 , -18 ] \text{ Y:[} -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 104 \rangle X: [-19, -18] Y: [-4, -3]
Found Entropy: 0
<Window: 105 > X:[ -19 , -18 ] Y:[ -3 , -2 ]
Found Entropy: 0
```

```
\langle \text{Window}: 106 \rangle X: [-19, -18] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window: } 107 \rangle X:[-19, -18] Y:[-1, 0]
Found Entropy: 0
<Window: 108 > X:[ -19 , -18 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 109 > X:[ -19 , -18 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 110 > X:[ -19 , -18 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 111 > X:[ -19 , -18 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 112 > X:[ -19 , -18 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 113 \rangle \text{ X:[} -18 , -17 ] \text{ Y:[} -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 114 > X:[-18, -17] Y:[-8, -7]
Found Entropy: 0
<Window: 115 > X:[ -18 , -17 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 116 > X:[ -18 , -17 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 117 \rangle \ \text{X:[} -18 \ , -17 \ ] \ \text{Y:[} -5 \ , -4 \ ]
Found Entropy: 0
\langle \text{Window: } 118 \rangle \ \text{X:[} -18 \ , -17 \ ] \ \text{Y:[} -4 \ , -3 \ ]
Found Entropy: 0
<Window: 119 > X:[ -18 , -17 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 120 > X:[ -18 , -17 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 121 > X:[ -18 , -17 ] Y:[ -1 , 0 ]
Found Entropy: 0
\langle \text{Window: } 122 \rangle X:[-18, -17] Y:[0, 1]
Found Entropy: 0
<Window: 123 > X:[ -18 , -17 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 124 > X:[ -18 , -17 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 125 > X:[ -18 , -17 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 126 > X:[ -18 , -17 ] Y:[ 4 , 5 ]
Found Entropy: 0
\forall x = 127 > x : [ -17 , -16 ] Y : [ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 128 \rangle X: [-17, -16] Y: [-8, -7]
Found Entropy: 0
<Window: 129 > X:[ -17 , -16 ] Y:[ -7 , -6 ]
Found Entropy: 0
```

```
\langle \text{Window: } 130 \rangle \text{ X:[} -17 , -16 ] \text{ Y:[} -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 131 \rangle X: [-17, -16] Y: [-5, -4]
Found Entropy: 0
\{Window: 132 > X:[-17, -16] Y:[-4, -3]
Found Entropy: 0
\langle \text{Window}: 133 \rangle X: [-17, -16] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 134 \rangle X: [-17, -16] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 135 \rangle X: [-17, -16] Y: [-1, 0]
Found Entropy: 0
<Window: 136 > X:[ -17 , -16 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window: } 137 \rangle X:[-17, -16] Y:[1, 2]
Found Entropy: 0
\langle \text{Window: } 138 \rangle \ \text{X:[} -17 \ , -16 \ ] \ \text{Y:[} 2 \ , 3 \ ]
Found Entropy: 0
<Window: 139 > X:[ -17 , -16 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window}: 140 \rangle X: [-17, -16] Y: [4, 5]
Found Entropy: 0
\langle \text{Window: } 141 \rangle \ \text{X:[} -16 \ , -15 \ ] \ \text{Y:[} -9 \ , -8 \ ]
Found Entropy: 0
\langle \text{Window: } 142 \rangle \ \text{X:[} -16 \ , -15 \ ] \ \text{Y:[} -8 \ , -7 \ ]
Found Entropy: 0
\langle \text{Window}: 143 \rangle X: [-16, -15] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 144 \rangle X: [-16, -15] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window: } 145 \rangle \text{ X:[} -16 , -15 ] \text{ Y:[} -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 146 \rangle X: [-16, -15] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 147 \rangle X: [-16, -15] Y: [-3, -2]
Found Entropy: 0
<Window: 148 > X:[ -16 , -15 ] Y:[ -2 , -1 ]
Found Entropy: 0
\langle \text{Window}: 149 \rangle X: [-16, -15] Y: [-1, 0]
Found Entropy: 0
\langle \text{Window: } 150 \rangle \text{ X:[} -16 , -15 ] \text{ Y:[} 0 , 1 ]
Found Entropy: 0
<Window: 151 > X:[ -16 , -15 ] Y:[ 1 , 2 ]
Found Entropy: 0
\forall 152 > X:[-16, -15] Y:[2, 3]
Found Entropy: 0
<Window: 153 > X:[ -16 , -15 ] Y:[ 3 , 4 ]
Found Entropy: 0
```

```
\langle \text{Window}: 154 \rangle X: [-16, -15] Y: [4, 5]
Found Entropy: 0
\langle \text{Window}: 155 \rangle X: [-15, -14] Y: [-9, -8]
Found Entropy: 0
\{Window: 156 > X:[-15, -14] Y:[-8, -7]
Found Entropy: 0
\{Window: 157 > X: [ -15 , -14 ] Y: [ -7 , -6 ] <math>\}
Found Entropy: 0
\{Window: 158 > X: [ -15 , -14 ] Y: [ -6 , -5 ] 
Found Entropy: 0
\langle \text{Window}: 159 \rangle X: [-15, -14] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 160 \rangle X: [-15, -14] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 161 \rangle X: [-15, -14] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 162 \rangle X: [-15, -14] Y: [-2, -1]
Found Entropy: 0
<Window: 163 > X:[ -15 , -14 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 164 > X:[ -15 , -14 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window: } 165 \rangle \ X: [ -15 , -14 ] \ Y: [ 1 , 2 ]
Found Entropy: 0
\langle \text{Window}: 166 \rangle X: [-15, -14] Y: [2, 3]
Found Entropy: 0
<Window: 167 > X:[ -15 , -14 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 168 > X:[ -15 , -14 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 169 \rangle \ \text{X:[} -14 , -13 \ ] \ \text{Y:[} -9 , -8 \ ]
Found Entropy: 0
\forall 170 > X:[-14, -13] Y:[-8, -7]
Found Entropy: 0
\langle \text{Window}: 171 > X: [-14, -13] Y: [-7, -6]
Found Entropy: 0
\{Window: 172 > X:[-14, -13] Y:[-6, -5]
Found Entropy: 0
<Window: 173 > X:[ -14 , -13 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 174 > X:[ -14 , -13 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 175 > X:[ -14 , -13 ] Y:[ -3 , -2 ]
Found Entropy: 0
\forall 176 > X: [-14, -13] Y: [-2, -1]
Found Entropy: 0
\forall X: [-14, -13] Y: [-1, 0]
Found Entropy: 0
```

```
\langle \text{Window: } 178 \rangle X:[-14, -13] Y:[0, 1]
Found Entropy: 0
\langle \text{Window: } 179 \rangle X:[-14, -13] Y:[1, 2]
Found Entropy: 0
<Window: 180 > X:[ -14 , -13 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 181 > X:[ -14 , -13 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 182 > X:[ -14 , -13 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 183 \rangle X: [-13, -12] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window: } 184 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} -8 \ , -7 \ ]
Found Entropy: 0
\langle \text{Window: } 185 \rangle \text{ X:[} -13 , -12 ] \text{ Y:[} -7 , -6 ]
Found Entropy: 0
\langle \text{Window: } 186 \rangle \text{ X:[} -13 , -12 ] \text{ Y:[} -6 , -5 ]
Found Entropy: 0
<Window: 187 > X:[ -13 , -12 ] Y:[ -5 , -4 ]
Found Entropy: 0
\{Window: 188 > X: [ -13 , -12 ] Y: [ -4 , -3 ] 
Found Entropy: 0
\langle \text{Window: } 189 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} -3 \ , -2 \ ]
Found Entropy: 0
\langle \text{Window: } 190 \rangle \ \text{X:[} -13 , -12 \ ] \ \text{Y:[} -2 , -1 \ ]
Found Entropy: 0
\langle \text{Window: 191} \rangle X: [-13, -12] Y: [-1, 0]
Found Entropy: 0
<Window: 192 > X:[ -13 , -12 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window: 193} \rangle X: [-13, -12] Y: [1, 2]
Found Entropy: 0
\langle \text{Window: } 194 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} 2 \ , 3 \ ]
Found Entropy: 0
<Window: 195 > X:[ -13 , -12 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 196 > X:[ -13 , -12 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 197 > X:[ -12 , -11 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 198 > X:[ -12 , -11 ] Y:[ -8 , -7 ]
Found Entropy: 0
\forall 199 > X:[-12, -11] Y:[-7, -6]
Found Entropy: 0
\forall X: [-12, -11] Y: [-6, -5]
Found Entropy: 0
\forall X: [-12, -11] Y: [-5, -4]
Found Entropy: 0
```

```
\langle \text{Window}: 202 \rangle X: [-12, -11] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 203 \rangle X: [-12, -11] Y: [-3, -2]
Found Entropy: 0
\{Window: 204 > X:[-12,-11] Y:[-2,-1] \}
Found Entropy: 0
<Window: 205 > X:[ -12 , -11 ] Y:[ -1 , 0 ]
Found Entropy: 0
\{Window: 206 \} X: [ -12 , -11 ] Y: [ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 207 \rangle X: [-12, -11] Y: [1, 2]
Found Entropy: 0
<Window: 208 > X:[ -12 , -11 ] Y:[ 2 , 3 ]
Found Entropy: 0
\langle \text{Window: } 209 \rangle \ \text{X:[} -12 \ , -11 \ ] \ \text{Y:[} 3 \ , 4 \ ]
Found Entropy: 0
\langle \text{Window}: 210 \rangle X: [-12, -11] Y: [4, 5]
Found Entropy: 0
\forall X:[-11,-10] Y:[-9,-8]
Found Entropy: 0
<Window: 212 > X:[ -11 , -10 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 213 > X:[ -11 , -10 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 214 > X:[ -11 , -10 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 215 \rangle X: [-11, -10] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 216 \rangle X: [-11, -10] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 217 > X:[-11, -10] Y:[-3, -2]
Found Entropy: 0
\langle \text{Window}: 218 \rangle X: [-11, -10] Y: [-2, -1]
Found Entropy: 0
<Window: 219 > X:[ -11 , -10 ] Y:[ -1 , 0 ]
Found Entropy: 0
\{Window: 220 > X:[-11, -10] Y:[0, 1]
Found Entropy: 0
<Window: 221 > X:[ -11 , -10 ] Y:[ 1 , 2 ]
Found Entropy: 0
\forall X: [-11, -10] Y: [2, 3]
Found Entropy: 0
<Window: 223 > X:[ -11 , -10 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 224 > X:[ -11 , -10 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 225 \rangle X:[-10, -9] Y:[-9, -8]
Found Entropy: 0
```

```
\langle \text{Window}: 226 \rangle X:[-10, -9] Y:[-8, -7]
Found Entropy: 0
\langle \text{Window}: 227 \rangle X:[-10, -9] Y:[-7, -6]
Found Entropy: 0
\langle \text{Window}: 228 \rangle X: [-10, -9] Y: [-6, -5]
Found Entropy: 0
<Window: 229 > X:[ -10 , -9 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 230 \rangle X: [-10, -9] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 231 \rangle X: [-10, -9] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 232 \rangle X: [-10, -9] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window: } 233 \rangle X: [-10, -9] Y: [-1, 0]
Found Entropy: 0
<Window: 234 > X:[ -10 , -9 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window: } 235 \rangle \text{ X:[} -10 , -9 ] \text{ Y:[} 1 , 2 ]
Found Entropy: 0
<Window: 236 > X:[ -10 , -9 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 237 > X:[ -10 , -9 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 238 > X:[ -10 , -9 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 239 \rangle X:[-9, -8] Y:[-9, -8]
Found Entropy: 0
\langle \text{Window}: 240 \rangle X: [-9, -8] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window: } 241 \rangle \ \text{X:[} -9 \ , -8 \ ] \ \text{Y:[} -7 \ , -6 \ ]
Found Entropy: 0
\langle \text{Window: } 242 \rangle \ \text{X:[} -9 \ , -8 \ ] \ \text{Y:[} -6 \ , -5 \ ]
Found Entropy: 0
\langle \text{Window}: 243 \rangle X: [-9, -8] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 244 \rangle X: [-9, -8] Y: [-4, -3]
Found Entropy: 0
\{Window: 245 > X:[-9,-8] Y:[-3,-2]
Found Entropy: 0
<Window: 246 > X:[ -9 , -8 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 247 > X:[-9, -8] Y:[-1, 0]
Found Entropy: 0
<Window: 248 > X:[ -9 , -8 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 249 > X:[ -9 , -8 ] Y:[ 1 , 2 ]
Found Entropy: 0
```

```
\langle \text{Window}: 250 \rangle X: [-9, -8] Y: [2, 3]
Found Entropy: 0
<Window: 251 > X:[ -9 , -8 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 252 > X:[ -9 , -8 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 253 > X:[ -8 , -7 ] Y:[ -9 , -8 ]
Found Entropy: 0
\{Window: 254 > X:[-8,-7] Y:[-8,-7] 
Found Entropy: 0
\langle \text{Window}: 255 \rangle X: [-8, -7] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 256 \rangle X: [-8, -7] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 257 \rangle X: [-8, -7] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 258 \rangle X: [-8, -7] Y: [-4, -3]
Found Entropy: 0
\forall X: [-8, -7] \ Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 260 \rangle X: [-8, -7] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window: 261} \rangle X: [-8, -7] Y: [-1, 0]
Found Entropy: 0
<Window: 262 > X:[ -8 , -7 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 263 > X:[ -8 , -7 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 264 > X:[ -8 , -7 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 265 > X:[ -8 , -7 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 266 > X:[ -8 , -7 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 267 \rangle X: [-7, -6] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 268 \rangle X: [-7, -6] Y: [-8, -7]
Found Entropy: 0
\{Window: 269 \} X:[ -7 , -6 ] Y:[ -7 , -6 ]
Found Entropy: 0
\forall X:[-7,-6] Y:[-6,-5]
Found Entropy: 0
\langle \text{Window}: 271 \rangle X:[-7, -6] Y:[-5, -4]
Found Entropy: 0
\forall X: [-7, -6] \ Y: [-4, -3]
Found Entropy: 0
<Window: 273 > X:[-7, -6] Y:[-3, -2]
Found Entropy: 0
```

```
\forall x = 1 
Found Entropy: 0
<Window: 275 > X:[-7, -6] Y:[-1, 0]
Found Entropy: 0
\langle \text{Window}: 276 \rangle X: [-7, -6] Y: [0, 1]
Found Entropy: 0
\langle \text{Window}: 277 \rangle X: [-7, -6] Y: [1, 2]
Found Entropy: 0
\langle \text{Window}: 278 \rangle X:[-7,-6] Y:[2,3]
Found Entropy: 0
<Window: 279 > X:[-7, -6] Y:[3, 4]
Found Entropy: 0
<Window: 280 > X:[ -7 , -6 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 281 \rangle X: [ -6 , -5 ] Y: [ -9 , -8 ]
Found Entropy: 0
\langle \text{Window: } 282 \rangle \text{ X:} [ -6 , -5 ] \text{ Y:} [ -8 , -7 ]
Found Entropy: 0
<Window: 283 > X:[ -6 , -5 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 284 > X:[ -6 , -5 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 285 \rangle \text{ X:} [ -6 , -5 ] \text{ Y:} [ -5 , -4 ]
Found Entropy: 0
\langle \text{Window: } 286 \rangle \ \text{X:[} -6 \ , -5 \ ] \ \text{Y:[} -4 \ , -3 \ ]
Found Entropy: 0
\langle \text{Window: } 287 \rangle \text{ X:} [ -6 , -5 ] \text{ Y:} [ -3 , -2 ]
Found Entropy: 0
<Window: 288 > X:[ -6 , -5 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 289 > X:[-6, -5] Y:[-1, 0]
Found Entropy: 0
<Window: 290 > X:[ -6 , -5 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 291 > X:[ -6 , -5 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 292 > X:[ -6 , -5 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 293 > X:[ -6 , -5 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 294 > X:[-6, -5] Y:[4, 5]
Found Entropy: 0
\langle \text{Window: } 295 \rangle X: [-5, -4] Y: [-9, -8]
Found Entropy: 0
<Window: 296 > X:[ -5 , -4 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 297 > X:[ -5 , -4 ] Y:[ -7 , -6 ]
Found Entropy: 0
```

```
\langle \text{Window: } 298 \rangle \ \text{X:[} -5 , -4 \ ] \ \text{Y:[} -6 , -5 \ ]
Found Entropy: 0
\langle \text{Window: } 299 \rangle X: [-5, -4] Y: [-5, -4]
Found Entropy: 0
<Window: 300 > X:[ -5 , -4 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 301 \rangle X: [-5, -4] Y: [-3, -2]
Found Entropy: 0
\{Window: 302 > X: [ -5 , -4 ] Y: [ -2 , -1 ] 
Found Entropy: 0
\langle \text{Window}: 303 \rangle X: [-5, -4] Y: [-1, 0]
Found Entropy: 0
<Window: 304 > X:[-5, -4] Y:[0, 1]
Found Entropy: 0
<Window: 305 > X:[ -5 , -4 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 306 > X:[ -5 , -4 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 307 > X:[-5, -4] Y:[3, 4]
Found Entropy: 0
\langle \text{Window}: 308 \rangle X: [-5, -4] Y: [4, 5]
Found Entropy: 0
\langle \text{Window: } 309 \rangle \ \text{X:} [ -4 , -3 ] \ \text{Y:} [ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 310 \rangle X: [-4, -3] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 311 \rangle X: [-4, -3] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 312 \rangle X: [-4, -3] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 313 \rangle X: [-4, -3] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 314 \rangle X: [-4, -3] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 315 \rangle X: [-4, -3] Y: [-3, -2]
Found Entropy: 0
\{Window: 316 > X: [ -4 , -3 ] Y: [ -2 , -1 ] 
Found Entropy: 0
<Window: 317 > X:[-4, -3] Y:[-1, 0]
Found Entropy: 0
<Window: 318 > X:[ -4 , -3 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 319 \rangle X: [-4, -3] Y: [1, 2]
Found Entropy: 0
<Window: 320 > X:[ -4 , -3 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 321 > X:[ -4 , -3 ] Y:[ 3 , 4 ]
Found Entropy: 0
```

```
\langle \text{Window}: 322 \rangle X: [-4, -3] Y: [4, 5]
Found Entropy: 0
\langle \text{Window}: 323 \rangle X: [-3, -2] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 324 \rangle X: [-3, -2] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 325 \rangle X: [-3, -2] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 326 \rangle X: [-3, -2] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 327 \rangle X:[-3, -2] Y:[-5, -4]
Found Entropy: 0
\langle \text{Window}: 328 \rangle X: [-3, -2] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 329 \rangle X: [-3, -2] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 330 \rangle X: [-3, -2] Y: [-2, -1]
Found Entropy: 0
<Window: 331 > X:[ -3 , -2 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 332 > X:[ -3 , -2 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 333 \rangle X: [-3, -2] Y: [1, 2]
Found Entropy: 0
\langle \text{Window}: 334 \rangle X:[-3,-2] Y:[2,3]
Found Entropy: 0
<Window: 335 > X:[ -3 , -2 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 336 > X:[ -3 , -2 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 337 \rangle \text{ X:[} -2 , -1 ] \text{ Y:[} -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 338 \rangle X: [-2, -1] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 339 \rangle X: [-2, -1] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 340 \rangle X: [-2, -1] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 341 \rangle X: [-2, -1] Y: [-5, -4]
Found Entropy: 0
<Window: 342 > X:[-2, -1] Y:[-4, -3]
Found Entropy: 0
\langle \text{Window}: 343 \rangle X: [-2, -1] Y: [-3, -2]
Found Entropy: 0
<Window: 344 > X:[ -2 , -1 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 345 > X:[ -2 , -1 ] Y:[ -1 , 0 ]
Found Entropy: 0
```

```
<Window: 346 > X:[ -2 , -1 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 347 \rangle X:[-2, -1] Y:[1, 2]
Found Entropy: 0
\{\text{Window: 348} > \text{X:} [-2, -1] \text{ Y:} [2, 3]
Found Entropy: 0
\langle \text{Window}: 349 \rangle X: [-2, -1] Y: [3, 4]
Found Entropy: 0
\langle \text{Window}: 350 \rangle X: [-2, -1] Y: [4, 5]
Found Entropy: 0
\langle \text{Window}: 351 \rangle X: [-1, 0] Y: [-9, -8]
Found Entropy: 0
<Window: 352 > X:[-1, 0] Y:[-8, -7]
Found Entropy: 0
<Window: 353 > X:[ -1 , 0 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 354 > X:[ -1 , 0 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 355 > X:[ -1 , 0 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 356 \rangle X: [-1, 0] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window: } 357 \rangle \text{ X:} [-1, 0] \text{ Y:} [-3, -2]
Found Entropy: 0
\langle \text{Window: } 358 \rangle \text{ X:} [-1, 0] \text{ Y:} [-2, -1]
Found Entropy: 0
<Window: 359 > X:[ -1 , 0 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 360 > X:[ -1 , 0 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 361 > X:[ -1 , 0 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 362 > X:[ -1 , 0 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 363 > X:[ -1 , 0 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 364 > X:[ -1 , 0 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 365 > X:[0,1] Y:[-9,-8]
Found Entropy: 0
<Window: 366 > X:[0, 1] Y:[-8, -7]
Found Entropy: 0
<Window: 367 > X:[ 0 , 1 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 368 > X:[ 0 , 1 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 369 > X:[ 0 , 1 ] Y:[ -5 , -4 ]
Found Entropy: 0
```

```
<Window: 370 > X:[ 0 , 1 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 371 \rangle X:[0,1] Y:[-3,-2]
Found Entropy: 0
\langle \text{Window}: 372 \rangle X: [0, 1] Y: [-2, -1]
Found Entropy: 0
\langle Window: 373 \rangle X:[0,1] Y:[-1,0]
Found Entropy: 0
<Window: 374 > X:[0,1] Y:[0,1]
Found Entropy: 0
<Window: 375 > X:[ 0 , 1 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 376 > X:[ 0 , 1 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 377 > X:[ 0 , 1 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 378 > X:[ 0 , 1 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 379 > X:[1, 2] Y:[-9, -8]
Found Entropy: 0
<Window: 380 > X:[1,2] Y:[-8,-7]
Found Entropy: 0
<Window: 381 > X:[1,2] Y:[-7,-6]
Found Entropy: 0
<Window: 382 > X:[ 1 , 2 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 383 > X:[1,2] Y:[-5,-4]
Found Entropy: 0
\langle \text{Window}: 384 \rangle X: [1, 2] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 385 \rangle X: [1, 2] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 386 \rangle X: [1, 2] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 387 \rangle X:[1,2] Y:[-1,0]
Found Entropy: 0
<Window: 388 > X:[ 1 , 2 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 389 > X:[ 1 , 2 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 390 > X:[ 1 , 2 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 391 > X:[ 1 , 2 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 392 > X:[ 1 , 2 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 393 > X:[ 2 , 3 ] Y:[ -9 , -8 ]
Found Entropy: 0
```

```
\langle \text{Window}: 394 \rangle X: [2, 3] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 395 \rangle X: [2, 3] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 396 \rangle X: [2, 3] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 397 \rangle X: [2, 3] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 398 \rangle X: [2, 3] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 399 \rangle X: [2, 3] Y: [-3, -2]
Found Entropy: 0
\{\text{Window: } 400 > X: [2, 3] Y: [-2, -1]
Found Entropy: 0
<Window: 401 > X:[ 2 , 3 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 402 > X:[2,3] Y:[0,1]
Found Entropy: 0
<Window: 403 > X:[2,3] Y:[1,2]
Found Entropy: 0
<Window: 404 > X:[2,3] Y:[2,3]
Found Entropy: 0
<Window: 405 > X:[ 2 , 3 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 406 > X:[ 2 , 3 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 407 > X:[3,4] Y:[-9,-8]
Found Entropy: 0
<Window: 408 > X:[ 3 , 4 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 409 > X:[3,4] Y:[-7,-6]
Found Entropy: 0
<Window: 410 > X:[ 3 , 4 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 411 > X:[3,4] Y:[-5,-4]
Found Entropy: 0
\langle \text{Window}: 412 \rangle X: [3, 4] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 413 \rangle X: [3, 4] Y: [-3, -2]
Found Entropy: 0
<Window: 414 > X:[3, 4] Y:[-2, -1]
Found Entropy: 0
<Window: 415 > X:[ 3 , 4 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 416 > X:[ 3 , 4 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 417 > X:[ 3 , 4 ] Y:[ 1 , 2 ]
Found Entropy: 0
```

```
<Window: 418 > X:[3, 4] Y:[2, 3]
Found Entropy: 0
<Window: 419 > X:[3, 4] Y:[3, 4]
Found Entropy: 0
<Window: 420 > X:[ 3 , 4 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 421 \rangle X: [4, 5] Y: [-9, -8]
Found Entropy: 0
\{\text{Window: } 422 > \text{X:} [4, 5] \text{ Y:} [-8, -7] \}
Found Entropy: 0
\{\text{Window}: 423 > X: [4, 5] Y: [-7, -6]
Found Entropy: 0
<Window: 424 > X:[ 4 , 5 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 425 > X:[ 4 , 5 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 426 > X:[ 4 , 5 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 427 > X:[4,5] Y:[-3,-2]
Found Entropy: 0
\langle \text{Window}: 428 \rangle X: [4, 5] Y: [-2, -1]
Found Entropy: 0
<Window: 429 > X:[ 4 , 5 ] Y:[ -1 , 0 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 430 > X:[4,5] Y:[0,1]
Found Entropy: 0
<Window: 431 > X:[4,5] Y:[1,2]
Found Entropy: 0
<Window: 432 > X:[ 4 , 5 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 433 > X:[4,5] Y:[3,4]
Found Entropy: 0
<Window: 434 > X:[4,5] Y:[4,5]
Found Entropy: 0
<Window: 435 > X:[5,6] Y:[-9,-8]
Found Entropy: 0
<Window: 436 > X:[5,6] Y:[-8,-7]
Found Entropy: 0
<Window: 437 > X:[5,6] Y:[-7,-6]
Found Entropy: 0
<Window: 438 > X:[ 5 , 6 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 439 > X:[5,6] Y:[-5,-4]
Found Entropy: 0
<Window: 440 > X:[5,6] Y:[-4,-3]
Found Entropy: 0
<Window: 441 > X:[5,6] Y:[-3,-2]
```

```
Found Entropy: 0
<Window: 442 > X:[5, 6] Y:[-2, -1]
Found Entropy: 0
<Window: 443 > X:[5,6] Y:[-1,0]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.6365141682948128
<Window: 444 > X:[5,6] Y:[0,1]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
<Window: 445 > X:[5, 6] Y:[1, 2]
Found Entropy: 0
<Window: 446 > X:[5,6] Y:[2,3]
Found Entropy: 0
<Window: 447 > X:[5,6] Y:[3,4]
Found Entropy: 0
<Window: 448 > X:[5,6] Y:[4,5]
Found Entropy: 0
<Window: 449 > X:[ 6 , 7 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 450 > X:[ 6 , 7 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 451 > X:[ 6 , 7 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 452 > X:[ 6 , 7 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 453 > X:[ 6 , 7 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 454 > X:[6,7] Y:[-4,-3]
Found Entropy: 0
<Window: 455 > X:[ 6 , 7 ] Y:[ -3 , -2 ]
Found Entropy: 0
\{\text{Window: } 456 > X: [6, 7] Y: [-2, -1]
Found Entropy: 0
<Window: 457 > X:[6, 7] Y:[-1, 0]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.6365141682948128
<Window: 458 > X:[ 6 , 7 ] Y:[ 0 , 1 ]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 0.6365141682948128
<Window: 459 > X:[6,7] Y:[1,2]
Found a sample of class: 0
```

```
Found Entropy: 0.0
<Window: 460 > X:[ 6 , 7 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 461 > X:[6, 7] Y:[3, 4]
Found Entropy: 0
<Window: 462 > X:[ 6 , 7 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 463 > X:[ 7 , 8 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 464 > X:[ 7 , 8 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 465 > X:[ 7 , 8 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 466 > X:[ 7 , 8 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 467 > X:[ 7 , 8 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 468 > X:[ 7 , 8 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 469 \rangle X: [7, 8] Y: [-3, -2]
Found Entropy: 0
<Window: 470 > X:[ 7 , 8 ] Y:[ -2 , -1 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 471 > X:[ 7 , 8 ] Y:[ -1 , 0 ]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 472 > X:[ 7 , 8 ] Y:[ 0 , 1 ]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.6931471805599453
<Window: 473 > X:[ 7 , 8 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 474 > X:[ 7 , 8 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 475 > X:[7,8] Y:[3,4]
Found Entropy: 0
<Window: 476 > X:[7,8] Y:[4,5]
Found Entropy: 0
<Window: 477 > X:[8,9] Y:[-9,-8]
Found Entropy: 0
<Window: 478 > X:[8, 9] Y:[-8, -7]
Found Entropy: 0
<Window: 479 > X:[8,9] Y:[-7,-6]
Found Entropy: 0
```

```
<Window: 480 > X:[8,9] Y:[-6,-5]
Found Entropy: 0
<Window: 481 > X:[8, 9] Y:[-5, -4]
Found Entropy: 0
\langle \text{Window}: 482 \rangle X: [8, 9] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 483 \rangle X: [8, 9] Y: [-3, -2]
Found Entropy: 0
\{\text{Window: } 484 > X: [8, 9] Y: [-2, -1]
Found Entropy: 0
<Window: 485 > X:[8, 9] Y:[-1, 0]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 0.6365141682948128
<Window: 486 > X:[ 8 , 9 ] Y:[ 0 , 1 ]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 487 > X:[ 8 , 9 ] Y:[ 1 , 2 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 488 > X:[ 8 , 9 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 489 > X:[ 8 , 9 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 490 > X:[8, 9] Y:[4, 5]
Found Entropy: 0
<Window: 491 > X:[ 9 , 10 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 492 > X:[ 9 , 10 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 493 > X:[ 9 , 10 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 494 > X:[ 9 , 10 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 495 > X:[ 9 , 10 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 496 > X:[9, 10] Y:[-4, -3]
Found Entropy: 0
<Window: 497 > X:[9, 10] Y:[-3, -2]
Found Entropy: 0
<Window: 498 > X:[ 9 , 10 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 499 > X:[ 9 , 10 ] Y:[ -1 , 0 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 500 > X:[ 9 , 10 ] Y:[ 0 , 1 ]
```

```
Found a sample of class: 0
Found Entropy: 0.0
<Window: 501 > X:[ 9 , 10 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 502 > X:[ 9 , 10 ] Y:[ 2 , 3 ]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
<Window: 503 > X:[ 9 , 10 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 504 > X:[ 9 , 10 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 505 > X:[ 10 , 11 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 506 > X:[ 10 , 11 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 507 > X:[ 10 , 11 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 508 > X:[ 10 , 11 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 509 > X:[ 10 , 11 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window: 510} \rangle \text{ X:[ 10 , 11 ] Y:[ -4 , -3 ]}
Found Entropy: 0
\langle \text{Window: 511} \rangle X: [10, 11] Y: [-3, -2]
Found Entropy: 0
\forall X:[10, 11] Y:[-2, -1]
Found Entropy: 0
<Window: 513 > X:[ 10 , 11 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 514 > X:[ 10 , 11 ] Y:[ 0 , 1 ]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 1.0397207708399179
<Window: 515 > X:[ 10 , 11 ] Y:[ 1 , 2 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 516 > X:[ 10 , 11 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 517 > X:[ 10 , 11 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 518 > X:[ 10 , 11 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 519 > X:[ 11 , 12 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 520 > X:[ 11 , 12 ] Y:[ -8 , -7 ]
```

```
Found Entropy: 0
<Window: 521 > X:[ 11 , 12 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 522 > X:[ 11 , 12 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 523 > X:[ 11 , 12 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window: } 524 \rangle \text{ X:[ } 11 \text{ , } 12 \text{ ] } \text{ Y:[ } -4 \text{ , } -3 \text{ ]}
Found Entropy: 0
<Window: 525 > X:[ 11 , 12 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 526 > X:[ 11 , 12 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 527 > X:[ 11 , 12 ] Y:[ -1 , 0 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 528 > X:[ 11 , 12 ] Y:[ 0 , 1 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 529 > X:[ 11 , 12 ] Y:[ 1 , 2 ]
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 530 > X:[ 11 , 12 ] Y:[ 2 , 3 ]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
<Window: 531 > X:[ 11 , 12 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 532 > X:[ 11 , 12 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: 533} \rangle X: [12, 13] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window: } 534 \rangle \text{ X:} [ 12 , 13 ] \text{ Y:} [ -8 , -7 ]
Found Entropy: 0
\langle \text{Window: 535} \rangle \text{ X:} [ 12 , 13 ] \text{ Y:} [ -7 , -6 ]
Found Entropy: 0
<Window: 536 > X:[ 12 , 13 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 537 \rangle \text{ X:[ } 12 \text{ , } 13 \text{ ] } \text{ Y:[ } -5 \text{ , } -4 \text{ ]}
Found Entropy: 0
\langle \text{Window: 538} \rangle \text{ X:[ 12 , 13 ] Y:[ -4 , -3 ]}
Found Entropy: 0
\langle \text{Window: 539} \rangle X: [12, 13] Y: [-3, -2]
Found Entropy: 0
\forall \text{Window: } 540 > X:[12, 13] Y:[-2, -1]
```

```
Found Entropy: 0
<Window: 541 > X:[12, 13] Y:[-1, 0]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 542 > X:[ 12 , 13 ] Y:[ 0 , 1 ]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 0.6365141682948128
<Window: 543 > X:[ 12 , 13 ] Y:[ 1 , 2 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 544 > X:[ 12 , 13 ] Y:[ 2 , 3 ]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 545 > X:[ 12 , 13 ] Y:[ 3 , 4 ]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 1.0397207708399179
<Window: 546 > X:[ 12 , 13 ] Y:[ 4 , 5 ]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 0.6365141682948128
\langle \text{Window: 547} \rangle X: [13, 14] Y: [-9, -8]
Found Entropy: 0
<Window: 548 > X:[13, 14] Y:[-8, -7]
Found Entropy: 0
\langle \text{Window: 549} \rangle X: [13, 14] Y: [-7, -6]
Found Entropy: 0
<Window: 550 > X:[ 13 , 14 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 551 > X:[ 13 , 14 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 552 \rangle X: [13, 14] Y: [-4, -3]
Found Entropy: 0
<Window: 553 > X:[ 13 , 14 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 554 > X:[ 13 , 14 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 555 > X:[ 13 , 14 ] Y:[ -1 , 0 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 556 > X:[ 13 , 14 ] Y:[ 0 , 1 ]
Found a sample of class: 2
```

```
Found a sample of class: 2
Found Entropy: 0.0
<Window: 557 > X:[ 13 , 14 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 558 > X:[ 13 , 14 ] Y:[ 2 , 3 ]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 1.0986122886681096
<Window: 559 > X:[ 13 , 14 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 560 > X:[ 13 , 14 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 561 > X:[ 14 , 15 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 562 \rangle X: [14, 15] Y: [-8, -7]
Found Entropy: 0
<Window: 563 > X:[ 14 , 15 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 564 > X:[ 14 , 15 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 565 > X:[ 14 , 15 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 566 > X:[ 14 , 15 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 567 \rangle X: [14, 15] Y: [-3, -2]
Found Entropy: 0
<Window: 568 > X:[ 14 , 15 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 569 > X:[ 14 , 15 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 570 > X:[ 14 , 15 ] Y:[ 0 , 1 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 571 > X:[ 14 , 15 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 572 > X:[ 14 , 15 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 573 > X:[ 14 , 15 ] Y:[ 3 , 4 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 574 > X:[ 14 , 15 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: 575} \rangle X: [15, 16] Y: [-9, -8]
Found Entropy: 0
<Window: 576 > X:[ 15 , 16 ] Y:[ -8 , -7 ]
Found Entropy: 0
\forall Window: 577 > X:[ 15 , 16 ] Y:[ -7 , -6 ]
```

```
Found Entropy: 0
<Window: 578 > X:[ 15 , 16 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 579 > X:[ 15 , 16 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 580 > X:[ 15 , 16 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: 581} \rangle \text{ X:[15,16] Y:[-3,-2]}
Found Entropy: 0
<Window: 582 > X:[ 15 , 16 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 583 > X:[ 15 , 16 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 584 > X:[ 15 , 16 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 585 > X:[ 15 , 16 ] Y:[ 1 , 2 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 586 > X:[ 15 , 16 ] Y:[ 2 , 3 ]
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 587 > X:[ 15 , 16 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 0.6931471805599453
<Window: 588 > X:[ 15 , 16 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 589 > X:[ 16 , 17 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 590 > X:[ 16 , 17 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window: 591} \rangle \text{ X:[ 16 , 17 ] Y:[ -7 , -6 ]}
Found Entropy: 0
<Window: 592 > X:[ 16 , 17 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 593 > X:[ 16 , 17 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 594 > X:[ 16 , 17 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 595 > X:[ 16 , 17 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 596 > X:[ 16 , 17 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 597 > X:[ 16 , 17 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 598 > X:[ 16 , 17 ] Y:[ 0 , 1 ]
Found Entropy: 0
```

```
<Window: 599 > X:[ 16 , 17 ] Y:[ 1 , 2 ]
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 600 > X:[ 16 , 17 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 601 > X:[ 16 , 17 ] Y:[ 3 , 4 ]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 0.6365141682948128
<Window: 602 > X:[ 16 , 17 ] Y:[ 4 , 5 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 603 > X:[ 17 , 18 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 604 > X:[ 17 , 18 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 605 > X:[ 17 , 18 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 606 > X:[ 17 , 18 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 607 > X:[ 17 , 18 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window: } 608 \rangle \text{ X:} [17, 18] \text{ Y:} [-4, -3]
Found Entropy: 0
\langle \text{Window: } 609 \rangle \ \text{X:[} 17 , 18 \ ] \ \text{Y:[} -3 , -2 \ ]
Found Entropy: 0
<Window: 610 > X:[ 17 , 18 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 611 > X:[ 17 , 18 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 612 > X:[ 17 , 18 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 613 > X:[ 17 , 18 ] Y:[ 1 , 2 ]
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 614 > X:[ 17 , 18 ] Y:[ 2 , 3 ]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 1.0397207708399179
<Window: 615 > X:[ 17 , 18 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found Entropy: 0.0
```

```
<Window: 616 > X:[ 17 , 18 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 617 \rangle \text{ X:} [ 18 , 19 ] \text{ Y:} [ -9 , -8 ]
Found Entropy: 0
\langle \text{Window: 618} \rangle X: [18, 19] Y: [-8, -7]
Found Entropy: 0
<Window: 619 > X:[ 18 , 19 ] Y:[ -7 , -6 ]
Found Entropy: 0
\{\text{Window: } 620 > X: [18, 19] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window: } 621 \rangle X: [18, 19] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window: } 622 \rangle \text{ X:} [ 18 , 19 ] \text{ Y:} [ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 623 \rangle \text{ X:} [ 18 , 19 ] \text{ Y:} [ -3 , -2 ]
Found Entropy: 0
\langle \text{Window: } 624 \rangle \text{ X:} [ 18 , 19 ] \text{ Y:} [ -2 , -1 ]
Found Entropy: 0
<Window: 625 > X:[ 18 , 19 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 626 > X:[ 18 , 19 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 627 > X:[ 18 , 19 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 628 > X:[ 18 , 19 ] Y:[ 2 , 3 ]
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 629 > X:[ 18 , 19 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6365141682948128
<Window: 630 > X:[ 18 , 19 ] Y:[ 4 , 5 ]
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.6931471805599453
\langle \text{Window: } 631 \rangle \text{ X:} [19, 20] \text{ Y:} [-9, -8]
Found Entropy: 0
\langle \text{Window: } 632 \rangle \text{ X:} [19, 20] \text{ Y:} [-8, -7]
Found Entropy: 0
<Window: 633 > X:[ 19 , 20 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 634 > X:[ 19 , 20 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 635 > X:[ 19 , 20 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window: } 636 \rangle \text{ X:} [ 19 , 20 ] \text{ Y:} [ -4 , -3 ]
```

```
Found Entropy: 0
<Window: 637 > X:[ 19 , 20 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 638 > X:[ 19 , 20 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 639 > X:[ 19 , 20 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 640 > X:[ 19 , 20 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 641 > X:[ 19 , 20 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 642 > X:[ 19 , 20 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 643 > X:[ 19 , 20 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 644 > X:[ 19 , 20 ] Y:[ 4 , 5 ]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.5004024235381879
<Window: 645 > X:[ 20 , 21 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 646 > X:[ 20 , 21 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 647 > X:[ 20 , 21 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 648 > X:[ 20 , 21 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 649 > X:[ 20 , 21 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 650 > X:[ 20 , 21 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 651 \rangle \ \text{X:} [ 20 , 21 ] \ \text{Y:} [ -3 , -2 ]
Found Entropy: 0
\langle \text{Window: } 652 \rangle \text{ X:} [ 20 , 21 ] \text{ Y:} [ -2 , -1 ]
Found Entropy: 0
<Window: 653 > X:[ 20 , 21 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 654 > X:[ 20 , 21 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 655 > X:[ 20 , 21 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 656 > X:[ 20 , 21 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 657 > X:[ 20 , 21 ] Y:[ 3 , 4 ]
```

```
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 658 > X:[ 20 , 21 ] Y:[ 4 , 5 ]
Found a sample of class: 0
Found Entropy: 0.0
Total Count: 658
Expected Count: 658
OKAY: True
----Done--- 25.162023873211908
Done!
-26 21 -9 5
You Can use this matrix now.
X_{min} = -26
X_max= 21
Y_{min} = -9
Y_{max} = 5
And the Matrix Shape: 47 * 14
<Window: 1 > X:[ -26 , -25 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 2 \rangle X: [-26, -25] Y: [-8, -7]
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6931471805599453
\langle \text{Window}: 3 \rangle X: [-26, -25] Y: [-7, -6]
Found a sample of class: 1
Found Entropy: 0.0
\{\text{Window: 4} > \text{X:[-26,-25]} \text{Y:[-6,-5]}
Found Entropy: 0
\langle \text{Window}: 5 \rangle X: [-26, -25] Y: [-5, -4]
Found Entropy: 0
\{Window: 6 > X:[ -26 , -25 ] Y:[ -4 , -3 ]
Found Entropy: 0
\{Window: 7 > X:[ -26 , -25 ] Y:[ -3 , -2 ]
Found Entropy: 0
\{\text{Window: 8 > X:[-26,-25] Y:[-2,-1]}
Found Entropy: 0
\forall x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x 
Found Entropy: 0
<Window: 10 > X:[ -26 , -25 ] Y:[ 0 , 1 ]
Found Entropy: 0
\forall X: [-26, -25] Y: [1, 2]
Found Entropy: 0
\forall X: [-26, -25] Y: [2, 3]
Found Entropy: 0
```

```
<Window: 13 > X:[ -26 , -25 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 14 > X:[ -26 , -25 ] Y:[ 4 , 5 ]
Found Entropy: 0
\{Window: 15 > X: [ -25 , -24 ] Y: [ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 16 \rangle X: [-25, -24] Y: [-8, -7]
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.6931471805599453
\{Window: 17 > X:[ -25 , -24 ] Y:[ -7 , -6 ]
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 1.0397207708399179
\langle \text{Window: } 18 \rangle \text{ X: } [-25, -24] \text{ Y: } [-6, -5]
Found a sample of class: 2
Found Entropy: 0.0
\langle \text{Window}: 19 \rangle X: [-25, -24] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 20 \rangle X: [-25, -24] Y: [-4, -3]
Found Entropy: 0
\{Window: 21 > X:[ -25 , -24 ] Y:[ -3 , -2 ]
Found Entropy: 0
\{Window: 22 > X: [-25, -24] Y: [-2, -1] \}
Found Entropy: 0
\{Window: 23 > X:[ -25 , -24 ] Y:[ -1 , 0 ]
Found Entropy: 0
\forall x \in X : [-25, -24] Y : [0, 1]
Found Entropy: 0
\langle \text{Window}: 25 \rangle X: [-25, -24] Y: [1, 2]
Found Entropy: 0
\{\text{Window: } 26 > \text{X:} [-25, -24] \text{ Y:} [2, 3]
Found Entropy: 0
<Window: 27 > X:[ -25 , -24 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window: 28} \rangle \text{ X:[-25,-24] Y:[4,5]}
Found Entropy: 0
\langle \text{Window}: 29 \rangle X: [-24, -23] Y: [-9, -8]
Found Entropy: 0
\{\text{Window}: 30 > X: [-24, -23] Y: [-8, -7] \}
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.6931471805599453
\langle \text{Window}: 31 \rangle X: [-24, -23] Y: [-7, -6]
Found a sample of class: 2
Found a sample of class: 1
```

```
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.5623351446188083
\{Window: 32 > X: [ -24 , -23 ] Y: [ -6 , -5 ]
Found a sample of class: 2
Found Entropy: 0.0
\langle \text{Window}: 33 \rangle X: [-24, -23] Y: [-5, -4]
Found Entropy: 0
\{Window: 34 > X: [ -24 , -23 ] Y: [ -4 , -3 ] <math>\}
Found Entropy: 0
\langle \text{Window}: 35 \rangle X: [-24, -23] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 36 \rangle X: [-24, -23] Y: [-2, -1]
Found Entropy: 0
<Window: 37 > X:[-24, -23] Y:[-1, 0]
Found Entropy: 0
\langle \text{Window: } 38 \rangle \ \text{X:[} -24 , -23 \ ] \ \text{Y:[} 0 , 1 \ ]
Found Entropy: 0
\forall x = 1  \forall x = 1 
Found Entropy: 0
\langle \text{Window}: 40 \rangle X: [-24, -23] Y: [2, 3]
Found Entropy: 0
<Window: 41 > X:[ -24 , -23 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window}: 42 \rangle X: [-24, -23] Y: [4, 5]
Found Entropy: 0
\langle \text{Window}: 43 \rangle X: [-23, -22] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 44 \rangle X: [-23, -22] Y: [-8, -7]
Found a sample of class: 2
Found Entropy: 0.0
\langle \text{Window}: 45 \rangle X: [-23, -22] Y: [-7, -6]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.6931471805599453
\langle \text{Window}: 46 \rangle X: [-23, -22] Y: [-6, -5]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
\langle \text{Window}: 47 \rangle X: [-23, -22] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window: } 48 \rangle \ \text{X:[} -23 , -22 \ ] \ \text{Y:[} -4 , -3 \ ]
Found Entropy: 0
\langle \text{Window: } 49 \rangle \text{ X: [} -23 , -22 ] \text{ Y: [} -3 , -2 ]
Found Entropy: 0
\langle \text{Window}: 50 \rangle X: [-23, -22] Y: [-2, -1]
```

```
Found Entropy: 0
\forall x \in X : [-23, -22] Y : [-1, 0]
Found Entropy: 0
\{\text{Window: } 52 > X:[-23, -22] Y:[0, 1]
Found Entropy: 0
\forall x \in X : [-23, -22] Y : [1, 2]
Found Entropy: 0
<Window: 54 > X:[ -23 , -22 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 55 > X:[ -23 , -22 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 56 > X:[ -23 , -22 ] Y:[ 4 , 5 ]
Found Entropy: 0
\{\text{Window: 57} > X: [-22, -21] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window: 58} \rangle \text{ X:} [-22, -21] \text{ Y:} [-8, -7]
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.6931471805599453
\{Window: 59 \} X: [ -22 , -21 ] Y: [ -7 , -6 ]
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 0.6931471805599453
\{Window: 60 \} X: [ -22 , -21 ] Y: [ -6 , -5 ]
Found Entropy: 0
\{\text{Window: } 61 > X: [-22, -21] \ Y: [-5, -4] \}
Found Entropy: 0
\{\text{Window: } 62 > \text{X:} [-22, -21] \text{ Y:} [-4, -3] \}
Found Entropy: 0
\forall \text{Window: } 63 > X:[-22, -21] Y:[-3, -2]
Found Entropy: 0
\{\text{Window: } 64 > \text{X:} [-22, -21] \text{ Y:} [-2, -1] \}
Found Entropy: 0
<Window: 65 > X:[ -22 , -21 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 66 > X:[ -22 , -21 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window: } 67 \rangle \text{ X:[} -22 , -21 ] \text{ Y:[} 1 , 2 ]
Found Entropy: 0
\langle \text{Window: } 68 \rangle \ \text{X:[} -22 , -21 \ ] \ \text{Y:[} 2 , 3 \ ]
Found Entropy: 0
\langle \text{Window}: 69 \rangle X: [-22, -21] Y: [3, 4]
Found Entropy: 0
\langle \text{Window}: 70 \rangle X: [-22, -21] Y: [4, 5]
Found Entropy: 0
\langle \text{Window}: 71 \rangle X: [-21, -20] Y: [-9, -8]
Found a sample of class: 2
Found Entropy: 0.0
```

```
\{\text{Window: 72} > \text{X:} [-21, -20] \text{ Y:} [-8, -7] \}
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 1.0986122886681096
<Window: 73 > X:[ -21 , -20 ] Y:[ -7 , -6 ]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.45056120886630463
\langle \text{Window}: 74 \rangle X: [-21, -20] Y: [-6, -5]
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6931471805599453
\langle \text{Window}: 75 \rangle X: [-21, -20] Y: [-5, -4]
Found Entropy: 0
\{Window: 76 > X: [ -21 , -20 ] Y: [ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 77 > X: [-21, -20] Y: [-3, -2]
Found Entropy: 0
\{Window: 78 > X:[ -21 , -20 ] Y:[ -2 , -1 ]
Found Entropy: 0
\{Window: 79 \} X: [ -21 , -20 ] Y: [ -1 , 0 ]
Found Entropy: 0
<Window: 80 > X:[ -21 , -20 ] Y:[ 0 , 1 ]
Found Entropy: 0
\forall X: [-21, -20] Y: [1, 2]
Found Entropy: 0
<Window: 82 > X:[ -21 , -20 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 83 > X:[ -21 , -20 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 84 > X:[ -21 , -20 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 85 \rangle \text{ X: } [-20, -19] \text{ Y: } [-9, -8]
Found Entropy: 0
<Window: 86 > X:[ -20 , -19 ] Y:[ -8 , -7 ]
Found a sample of class: 2
Found Entropy: 0.0
\{\text{Window: 87} > \text{X:[-20,-19]} \text{ Y:[-7,-6]}
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 1.0397207708399179
```

```
\langle \text{Window: 88} \rangle \text{ X: [ -20 , -19 ] Y: [ -6 , -5 ]}
Found Entropy: 0
\langle \text{Window: 89} \rangle \text{ X: [ -20 , -19 ] Y: [ -5 , -4 ]}
Found Entropy: 0
\{Window: 90 > X:[ -20 , -19 ] Y:[ -4 , -3 ]
Found Entropy: 0
\{Window: 91 > X:[ -20 , -19 ] Y:[ -3 , -2 ]
Found Entropy: 0
\{\text{Window: }92 > \text{X:}[-20, -19] \text{ Y:}[-2, -1]
Found Entropy: 0
\{Window: 93 > X:[ -20 , -19 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 94 > X:[ -20 , -19 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window: 95} \rangle X: [-20, -19] Y: [1, 2]
Found Entropy: 0
\langle \text{Window: 96} \rangle \text{ X:[-20,-19] Y:[2,3]}
Found Entropy: 0
\forall 1.5 \text{ Window: } 97 > X:[-20, -19] Y:[3, 4]
Found Entropy: 0
<Window: 98 > X:[ -20 , -19 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 99 > X:[ -19 , -18 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window: } 100 \rangle \text{ X:[} -19 , -18 ] \text{ Y:[} -8 , -7 ]
Found a sample of class: 1
Found Entropy: 0.0
\langle \text{Window}: 101 > X:[-19, -18] Y:[-7, -6]
Found Entropy: 0
\{Window: 102 > X:[-19, -18] Y:[-6, -5]
Found a sample of class: 1
Found Entropy: 0.0
\langle \text{Window: } 103 \rangle \text{ X:[} -19 \text{ , } -18 \text{] } \text{ Y:[} -5 \text{ , } -4 \text{]}
Found Entropy: 0
\langle \text{Window}: 104 \rangle X: [-19, -18] Y: [-4, -3]
Found Entropy: 0
\{Window: 105 > X:[-19, -18] Y:[-3, -2]
Found Entropy: 0
\{Window: 106 \} X: [ -19 , -18 ] Y: [ -2 , -1 ]
Found Entropy: 0
<Window: 107 > X:[ -19 , -18 ] Y:[ -1 , 0 ]
Found Entropy: 0
\langle \text{Window: } 108 \rangle \ \text{X:[} -19 \ , -18 \ ] \ \text{Y:[} 0 \ , 1 \ ]
Found Entropy: 0
\langle \text{Window: } 109 \rangle \ \text{X:[} -19 \ , -18 \ ] \ \text{Y:[} 1 \ , 2 \ ]
Found Entropy: 0
\langle \text{Window: } 110 \rangle \ \text{X:[} -19 \ , -18 \ ] \ \text{Y:[} 2 \ , 3 \ ]
Found Entropy: 0
```

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\langle \text{Window: } 111 \rangle \ \text{X:[} -19 \ , -18 \ ] \ \text{Y:[} 3 \ , 4 \ ]
Found Entropy: 0
\langle \text{Window: } 112 \rangle \ \text{X:[} -19 \ , -18 \ ] \ \text{Y:[} 4 \ , 5 \ ]
Found Entropy: 0
<Window: 113 > X:[ -18 , -17 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 114 > X:[ -18 , -17 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window}: 115 \rangle X: [-18, -17] Y: [-7, -6]
Found Entropy: 0
<Window: 116 > X:[ -18 , -17 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 117 \rangle \text{ X:[} -18 , -17 ] \text{ Y:[} -5 , -4 ]
Found Entropy: 0
\langle \text{Window: } 118 \rangle \ \text{X:[} -18 \ , -17 \ ] \ \text{Y:[} -4 \ , -3 \ ]
Found Entropy: 0
\langle \text{Window: } 119 \rangle \ \text{X:[} -18 \ , -17 \ ] \ \text{Y:[} -3 \ , -2 \ ]
Found Entropy: 0
<Window: 120 > X:[ -18 , -17 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 121 > X:[ -18 , -17 ] Y:[ -1 , 0 ]
Found Entropy: 0
\langle \text{Window: } 122 \rangle \ \text{X:[} -18 \ , -17 \ ] \ \text{Y:[} 0 \ , 1 \ ]
Found Entropy: 0
<Window: 123 > X:[ -18 , -17 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 124 > X:[ -18 , -17 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 125 > X:[ -18 , -17 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window}: 126 \rangle X: [-18, -17] Y: [4, 5]
Found Entropy: 0
\forall \text{Window: } 127 > X:[-17, -16] Y:[-9, -8]
Found Entropy: 0
<Window: 128 > X:[ -17 , -16 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window}: 129 \rangle X: [-17, -16] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 130 \rangle X: [-17, -16] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window: } 131 \rangle \ \text{X:[} -17 \ , -16 \ ] \ \text{Y:[} -5 \ , -4 \ ]
Found Entropy: 0
\forall Window: 132 > X:[ -17 , -16 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 133 \rangle X: [-17, -16] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 134 \rangle X: [-17, -16] Y: [-2, -1]
Found Entropy: 0
```

```
<Window: 135 > X:[ -17 , -16 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 136 > X:[ -17 , -16 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 137 > X:[ -17 , -16 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 138 > X:[ -17 , -16 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 139 > X:[ -17 , -16 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window}: 140 \rangle X: [-17, -16] Y: [4, 5]
Found Entropy: 0
\langle \text{Window: } 141 \rangle \ \text{X:[} -16 \ , -15 \ ] \ \text{Y:[} -9 \ , -8 \ ]
Found Entropy: 0
\langle \text{Window: } 142 \rangle \text{ X:[} -16 , -15 ] \text{ Y:[} -8 , -7 ]
Found Entropy: 0
\langle \text{Window}: 143 \rangle X: [-16, -15] Y: [-7, -6]
Found Entropy: 0
<Window: 144 > X:[ -16 , -15 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 145 > X:[ -16 , -15 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 146 \rangle X: [-16, -15] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window: } 147 \rangle \ \text{X:[} -16 \ , -15 \ ] \ \text{Y:[} -3 \ , -2 \ ]
Found Entropy: 0
\langle \text{Window: } 148 \rangle \ \text{X:[} -16 \ , -15 \ ] \ \text{Y:[} -2 \ , -1 \ ]
Found Entropy: 0
<Window: 149 > X:[ -16 , -15 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 150 > X:[ -16 , -15 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window: } 151 \rangle \ \text{X:[} -16 \ , -15 \ ] \ \text{Y:[} 1 \ , 2 \ ]
Found Entropy: 0
<Window: 152 > X:[ -16 , -15 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 153 > X:[ -16 , -15 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 154 > X:[ -16 , -15 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 155 > X:[ -15 , -14 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 156 > X:[ -15 , -14 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 157 > X:[ -15 , -14 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 158 > X:[ -15 , -14 ] Y:[ -6 , -5 ]
Found Entropy: 0
```

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\langle \text{Window}: 159 \rangle X: [-15, -14] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 160 \rangle X: [-15, -14] Y: [-4, -3]
Found Entropy: 0
\{Window: 161 > X:[-15, -14] Y:[-3, -2]
Found Entropy: 0
<Window: 162 > X:[ -15 , -14 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 163 > X:[ -15 , -14 ] Y:[ -1 , 0 ]
Found Entropy: 0
\langle \text{Window}: 164 \rangle X: [-15, -14] Y: [0, 1]
Found Entropy: 0
<Window: 165 > X:[ -15 , -14 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 166 > X:[ -15 , -14 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 167 > X:[ -15 , -14 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 168 > X:[ -15 , -14 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 169 \rangle X: [-14, -13] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 170 \rangle X: [-14, -13] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window: } 171 \rangle \ \text{X:[} -14 \ , -13 \ ] \ \text{Y:[} -7 \ , -6 \ ]
Found Entropy: 0
\forall \text{Window: } 172 > X:[-14, -13] Y:[-6, -5]
Found Entropy: 0
\forall Window: 173 > X:[ -14 , -13 ] Y:[ -5 , -4 ]
Found Entropy: 0
\forall \text{Window: } 174 > X:[-14, -13] Y:[-4, -3]
Found Entropy: 0
\forall Window: 175 > X:[ -14 , -13 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window}: 176 \rangle X: [-14, -13] Y: [-2, -1]
Found Entropy: 0
<Window: 177 > X:[ -14 , -13 ] Y:[ -1 , 0 ]
Found Entropy: 0
\langle \text{Window}: 178 \rangle X: [-14, -13] Y: [0, 1]
Found Entropy: 0
<Window: 179 > X:[ -14 , -13 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window: } 180 \rangle \ \text{X:[} -14 \ , -13 \ ] \ \text{Y:[} 2 \ , 3 \ ]
Found Entropy: 0
\forall 181 > X:[-14, -13] Y:[3, 4]
Found Entropy: 0
<Window: 182 > X:[ -14 , -13 ] Y:[ 4 , 5 ]
Found Entropy: 0
```

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\langle Window: 183 \rangle X: [-13, -12] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window: } 184 \rangle \text{ X:[} -13 , -12 ] \text{ Y:[} -8 , -7 ]
Found Entropy: 0
\{Window: 185 > X:[-13, -12] Y:[-7, -6]
Found Entropy: 0
<Window: 186 > X:[ -13 , -12 ] Y:[ -6 , -5 ]
Found Entropy: 0
\{Window: 187 > X:[ -13 , -12 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 188 \rangle X: [-13, -12] Y: [-4, -3]
Found Entropy: 0
<Window: 189 > X:[ -13 , -12 ] Y:[ -3 , -2 ]
Found Entropy: 0
\forall \text{Window: } 190 > X:[-13, -12] Y:[-2, -1]
Found Entropy: 0
\langle \text{Window: 191} \rangle X: [-13, -12] Y: [-1, 0]
Found Entropy: 0
<Window: 192 > X:[ -13 , -12 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 193 > X:[ -13 , -12 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window: } 194 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} 2 \ , 3 \ ]
Found Entropy: 0
\langle \text{Window: } 195 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} 3 \ , 4 \ ]
Found Entropy: 0
\langle \text{Window: } 196 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} 4 \ , 5 \ ]
Found Entropy: 0
\forall \text{Window: } 197 > X:[-12, -11] Y:[-9, -8]
Found Entropy: 0
\forall \text{Window: } 198 > X:[-12, -11] Y:[-8, -7]
Found Entropy: 0
\forall \text{Window: } 199 > X:[-12, -11] Y:[-7, -6]
Found Entropy: 0
\langle \text{Window}: 200 \rangle X: [-12, -11] Y: [-6, -5]
Found Entropy: 0
\{Window: 201 > X:[-12, -11] Y:[-5, -4]
Found Entropy: 0
<Window: 202 > X:[ -12 , -11 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 203 > X:[ -12 , -11 ] Y:[ -3 , -2 ]
Found Entropy: 0
\forall \text{Window: } 204 > X:[-12, -11] Y:[-2, -1]
Found Entropy: 0
<Window: 205 > X:[ -12 , -11 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 206 > X:[ -12 , -11 ] Y:[ 0 , 1 ]
Found Entropy: 0
```

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\langle \text{Window: } 207 \rangle X:[-12, -11] Y:[1, 2]
Found Entropy: 0
\langle \text{Window: } 208 \rangle \ \text{X:[} -12 \ , -11 \ ] \ \text{Y:[} 2 \ , 3 \ ]
Found Entropy: 0
\{Window: 209 > X:[-12, -11] Y:[3, 4]
Found Entropy: 0
<Window: 210 > X:[ -12 , -11 ] Y:[ 4 , 5 ]
Found Entropy: 0
\{Window: 211 > X:[-11, -10] Y:[-9, -8]
Found Entropy: 0
\{Window: 212 > X:[-11, -10] Y:[-8, -7]
Found Entropy: 0
\langle \text{Window}: 213 \rangle X: [-11, -10] Y: [-7, -6]
Found Entropy: 0
\forall X:[-11, -10] Y:[-6, -5]
Found Entropy: 0
\langle \text{Window}: 215 \rangle X: [-11, -10] Y: [-5, -4]
Found Entropy: 0
<Window: 216 > X:[ -11 , -10 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 217 \rangle X: [-11, -10] Y: [-3, -2]
Found Entropy: 0
<Window: 218 > X:[ -11 , -10 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 219 > X:[ -11 , -10 ] Y:[ -1 , 0 ]
Found Entropy: 0
\langle \text{Window: } 220 \rangle X:[-11, -10] Y:[0, 1]
Found Entropy: 0
<Window: 221 > X:[ -11 , -10 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window: } 222 \rangle X:[-11, -10] Y:[2, 3]
Found Entropy: 0
\langle \text{Window: } 223 \rangle X:[-11, -10] Y:[3, 4]
Found Entropy: 0
<Window: 224 > X:[ -11 , -10 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 225 \rangle X: [-10, -9] Y: [-9, -8]
Found Entropy: 0
<Window: 226 > X:[ -10 , -9 ] Y:[ -8 , -7 ]
Found Entropy: 0
\forall \text{Window: } 227 > X:[-10, -9] Y:[-7, -6]
Found Entropy: 0
\langle \text{Window: } 228 \rangle \text{ X:[} -10 , -9 ] \text{ Y:[} -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 229 \rangle X:[-10, -9] Y:[-5, -4]
Found Entropy: 0
\langle \text{Window}: 230 \rangle X: [-10, -9] Y: [-4, -3]
Found Entropy: 0
```

```
\langle \text{Window}: 231 \rangle X:[-10, -9] Y:[-3, -2]
Found Entropy: 0
\langle \text{Window}: 232 \rangle X: [-10, -9] Y: [-2, -1]
Found Entropy: 0
\{Window: 233 > X: [-10, -9] Y: [-1, 0]
Found Entropy: 0
<Window: 234 > X:[ -10 , -9 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 235 \rangle X: [-10, -9] Y: [1, 2]
Found Entropy: 0
\langle \text{Window}: 236 \rangle X: [-10, -9] Y: [2, 3]
Found Entropy: 0
<Window: 237 > X:[ -10 , -9 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 238 > X:[ -10 , -9 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 239 \rangle X:[-9, -8] Y:[-9, -8]
Found Entropy: 0
<Window: 240 > X:[ -9 , -8 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window: } 241 \rangle \ \text{X:[} -9 \ , -8 \ ] \ \text{Y:[} -7 \ , -6 \ ]
Found Entropy: 0
\langle \text{Window: } 242 \rangle \ \text{X:[} -9 \ , -8 \ ] \ \text{Y:[} -6 \ , -5 \ ]
Found Entropy: 0
\langle \text{Window: } 243 \rangle \ \text{X:[} -9 \ , -8 \ ] \ \text{Y:[} -5 \ , -4 \ ]
Found Entropy: 0
\langle \text{Window}: 244 \rangle X: [-9, -8] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 245 \rangle X: [-9, -8] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 246 \rangle X: [-9, -8] Y: [-2, -1]
Found Entropy: 0
<Window: 247 > X:[-9, -8] Y:[-1, 0]
Found Entropy: 0
\langle \text{Window}: 248 \rangle X: [-9, -8] Y: [0, 1]
Found Entropy: 0
<Window: 249 > X:[ -9 , -8 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window}: 250 \rangle X: [-9, -8] Y: [2, 3]
Found Entropy: 0
<Window: 251 > X:[-9, -8] Y:[3, 4]
Found Entropy: 0
\langle \text{Window}: 252 \rangle X:[-9, -8] Y:[4, 5]
Found Entropy: 0
<Window: 253 > X:[ -8 , -7 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 254 > X:[ -8 , -7 ] Y:[ -8 , -7 ]
Found Entropy: 0
```

```
\langle \text{Window}: 255 \rangle X: [-8, -7] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 256 \rangle X: [-8, -7] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 257 \rangle X: [-8, -7] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 258 \rangle X: [-8, -7] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 259 \rangle X: [-8, -7] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 260 \rangle X: [-8, -7] Y: [-2, -1]
Found Entropy: 0
<Window: 261 > X:[-8, -7] Y:[-1, 0]
Found Entropy: 0
<Window: 262 > X:[ -8 , -7 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 263 \rangle X: [-8, -7] Y: [1, 2]
Found Entropy: 0
\langle \text{Window}: 264 \rangle X:[-8, -7] Y:[2, 3]
Found Entropy: 0
<Window: 265 > X:[ -8 , -7 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 266 > X:[ -8 , -7 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 267 \rangle \text{ X:[} -7 , -6 ] \text{ Y:[} -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 268 \rangle X: [-7, -6] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window: } 269 \rangle X:[-7,-6] Y:[-7,-6]
Found Entropy: 0
\langle \text{Window}: 270 \rangle X:[-7,-6] Y:[-6,-5]
Found Entropy: 0
\langle \text{Window}: 271 \rangle X:[-7, -6] Y:[-5, -4]
Found Entropy: 0
\langle \text{Window}: 272 \rangle X: [-7, -6] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 273 \rangle X: [-7, -6] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 274 \rangle X: [-7, -6] Y: [-2, -1]
Found Entropy: 0
<Window: 275 > X:[-7, -6] Y:[-1, 0]
Found Entropy: 0
<Window: 276 > X:[ -7 , -6 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 277 > X:[ -7 , -6 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 278 > X:[ -7 , -6 ] Y:[ 2 , 3 ]
Found Entropy: 0
```

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<Window: 279 > X:[ -7 , -6 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 280 > X:[ -7 , -6 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 281 \rangle X: [ -6 , -5 ] Y: [ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 282 \rangle X: [-6, -5] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 283 \rangle X: [-6, -5] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 284 \rangle X: [-6, -5] Y: [-6, -5]
Found Entropy: 0
<Window: 285 > X:[-6, -5] Y:[-5, -4]
Found Entropy: 0
\langle \text{Window: } 286 \rangle \text{ X:} [ -6 , -5 ] \text{ Y:} [ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 287 \rangle \text{ X:} [ -6 , -5 ] \text{ Y:} [ -3 , -2 ]
Found Entropy: 0
\forall X: [-6, -5] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 289 \rangle X: [-6, -5] Y: [-1, 0]
Found Entropy: 0
<Window: 290 > X:[ -6 , -5 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 291 > X:[ -6 , -5 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window}: 292 \rangle X: [-6, -5] Y: [2, 3]
Found Entropy: 0
<Window: 293 > X:[ -6 , -5 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 294 > X:[ -6 , -5 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 295 \rangle X:[-5, -4] Y:[-9, -8]
Found Entropy: 0
\langle \text{Window}: 296 \rangle X: [-5, -4] Y: [-8, -7]
Found Entropy: 0
\{Window: 297 > X:[ -5 , -4 ] Y:[ -7 , -6 ]
Found Entropy: 0
\langle \text{Window}: 298 \rangle X: [-5, -4] Y: [-6, -5]
Found Entropy: 0
\forall 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.
Found Entropy: 0
<Window: 300 > X:[ -5 , -4 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 301 \rangle X: [-5, -4] Y: [-3, -2]
Found Entropy: 0
<Window: 302 > X:[ -5 , -4 ] Y:[ -2 , -1 ]
Found Entropy: 0
```

```
<Window: 303 > X:[ -5 , -4 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 304 > X:[ -5 , -4 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 305 \rangle X: [-5, -4] Y: [1, 2]
Found Entropy: 0
<Window: 306 > X:[ -5 , -4 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 307 > X:[ -5 , -4 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window}: 308 \rangle X: [-5, -4] Y: [4, 5]
Found Entropy: 0
\langle \text{Window: } 309 \rangle \ \text{X:[} -4 , -3 ] \ \text{Y:[} -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 310 \rangle X: [-4, -3] Y: [-8, -7]
Found Entropy: 0
<Window: 311 > X:[ -4 , -3 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 312 > X:[ -4 , -3 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 313 \rangle X: [-4, -3] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 314 \rangle X: [-4, -3] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 315 \rangle X: [-4, -3] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 316 \rangle X: [-4, -3] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 317 \rangle X: [-4, -3] Y: [-1, 0]
Found Entropy: 0
<Window: 318 > X:[ -4 , -3 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 319 \rangle X: [-4, -3] Y: [1, 2]
Found Entropy: 0
\langle \text{Window}: 320 \rangle X: [-4, -3] Y: [2, 3]
Found Entropy: 0
\langle \text{Window}: 321 \rangle X: [-4, -3] Y: [3, 4]
Found Entropy: 0
\langle \text{Window}: 322 \rangle X: [-4, -3] Y: [4, 5]
Found Entropy: 0
<Window: 323 > X:[-3, -2] Y:[-9, -8]
Found Entropy: 0
\langle \text{Window}: 324 \rangle X:[-3, -2] Y:[-8, -7]
Found Entropy: 0
<Window: 325 > X:[ -3 , -2 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 326 > X:[ -3 , -2 ] Y:[ -6 , -5 ]
Found Entropy: 0
```

```
\langle \text{Window}: 327 \rangle X: [-3, -2] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 328 \rangle X: [-3, -2] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 329 \rangle X: [-3, -2] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 330 \rangle X: [-3, -2] Y: [-2, -1]
Found Entropy: 0
<Window: 331 > X:[ -3 , -2 ] Y:[ -1 , 0 ]
Found Entropy: 0
\langle \text{Window}: 332 \rangle X:[-3, -2] Y:[0, 1]
Found Entropy: 0
\langle \text{Window}: 333 \rangle X: [-3, -2] Y: [1, 2]
Found Entropy: 0
\langle \text{Window}: 334 \rangle X:[-3,-2] Y:[2,3]
Found Entropy: 0
<Window: 335 > X:[ -3 , -2 ] Y:[ 3 , 4 ]
Found Entropy: 0
\forall X: [-3, -2] Y: [4, 5]
Found Entropy: 0
\langle \text{Window}: 337 \rangle X: [-2, -1] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 338 \rangle X: [-2, -1] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window: } 339 \rangle \ \text{X:[} -2 \ , -1 \ ] \ \text{Y:[} -7 \ , -6 \ ]
Found Entropy: 0
\langle \text{Window}: 340 \rangle X: [-2, -1] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 341 > X: [-2, -1] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 342 \rangle X: [-2, -1] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 343 \rangle X: [-2, -1] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 344 \rangle X: [-2, -1] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 345 \rangle X: [-2, -1] Y: [-1, 0]
Found Entropy: 0
<Window: 346 > X:[ -2 , -1 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 347 > X:[-2, -1] Y:[1, 2]
Found Entropy: 0
\langle \text{Window}: 348 \rangle X: [-2, -1] Y: [2, 3]
Found Entropy: 0
<Window: 349 > X:[ -2 , -1 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 350 > X:[ -2 , -1 ] Y:[ 4 , 5 ]
Found Entropy: 0
```

```
<Window: 351 > X:[ -1 , 0 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 352 > X:[-1, 0] Y:[-8, -7]
Found Entropy: 0
\langle \text{Window}: 353 \rangle X: [-1, 0] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 354 \rangle X: [-1, 0] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 355 \rangle X: [-1, 0] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 356 \rangle X: [-1, 0] Y: [-4, -3]
Found Entropy: 0
<Window: 357 > X:[ -1 , 0 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 358 > X:[ -1 , 0 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 359 > X:[ -1 , 0 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 360 > X:[-1, 0] Y:[0, 1]
Found Entropy: 0
<Window: 361 > X:[ -1 , 0 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 362 > X:[ -1 , 0 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 363 > X:[ -1 , 0 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 364 > X:[ -1 , 0 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 365 > X:[ 0 , 1 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 366 > X:[ 0 , 1 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 367 > X:[ 0 , 1 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 368 > X:[ 0 , 1 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 369 > X:[0,1] Y:[-5,-4]
Found Entropy: 0
\langle \text{Window}: 370 \rangle X: [0, 1] Y: [-4, -3]
Found Entropy: 0
<Window: 371 > X:[0, 1] Y:[-3, -2]
Found Entropy: 0
\langle \text{Window}: 372 \rangle X:[0,1] Y:[-2,-1]
Found Entropy: 0
<Window: 373 > X:[ 0 , 1 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 374 > X:[0, 1] Y:[0, 1]
Found Entropy: 0
```

```
<Window: 375 > X:[ 0 , 1 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 376 > X:[ 0 , 1 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 377 > X:[0,1] Y:[3,4]
Found Entropy: 0
<Window: 378 > X:[ 0 , 1 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 379 \rangle X: [1, 2] Y: [-9, -8]
Found Entropy: 0
<Window: 380 > X:[ 1 , 2 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 381 > X:[1,2] Y:[-7,-6]
Found Entropy: 0
\langle \text{Window}: 382 \rangle X: [1, 2] Y: [-6, -5]
Found Entropy: 0
<Window: 383 > X:[ 1 , 2 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 384 > X:[1, 2] Y:[-4, -3]
Found Entropy: 0
<Window: 385 > X:[1,2] Y:[-3,-2]
Found Entropy: 0
<Window: 386 > X:[1,2] Y:[-2,-1]
Found Entropy: 0
<Window: 387 > X:[ 1 , 2 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 388 > X:[ 1 , 2 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 389 > X:[ 1 , 2 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 390 > X:[1,2] Y:[2,3]
Found Entropy: 0
<Window: 391 > X:[ 1 , 2 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 392 > X:[ 1 , 2 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 393 \rangle X: [2, 3] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 394 \rangle X: [2, 3] Y: [-8, -7]
Found Entropy: 0
<Window: 395 > X:[ 2 , 3 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 396 > X:[ 2 , 3 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 397 > X:[ 2 , 3 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 398 > X:[ 2 , 3 ] Y:[ -4 , -3 ]
Found Entropy: 0
```

```
\langle \text{Window}: 399 \rangle X: [2, 3] Y: [-3, -2]
Found Entropy: 0
\{\text{Window: } 400 > X: [2, 3] Y: [-2, -1]
Found Entropy: 0
<Window: 401 > X:[2, 3] Y:[-1, 0]
Found Entropy: 0
<Window: 402 > X:[ 2 , 3 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 403 > X:[ 2 , 3 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 404 > X:[2,3] Y:[2,3]
Found Entropy: 0
<Window: 405 > X:[2,3] Y:[3,4]
Found Entropy: 0
<Window: 406 > X:[ 2 , 3 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 407 > X:[3,4] Y:[-9,-8]
Found Entropy: 0
<Window: 408 > X:[3, 4] Y:[-8, -7]
Found Entropy: 0
<Window: 409 > X:[3, 4] Y:[-7, -6]
Found Entropy: 0
<Window: 410 > X:[3, 4] Y:[-6, -5]
Found Entropy: 0
<Window: 411 > X:[ 3 , 4 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 412 \rangle X:[3,4] Y:[-4,-3]
Found Entropy: 0
<Window: 413 > X:[ 3 , 4 ] Y:[ -3 , -2 ]
Found Entropy: 0
\{Window: 414 > X:[3, 4] Y:[-2, -1]
Found Entropy: 0
<Window: 415 > X:[ 3 , 4 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 416 > X:[ 3 , 4 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 417 > X:[ 3 , 4 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 418 > X:[ 3 , 4 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 419 > X:[ 3 , 4 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 420 > X:[3, 4] Y:[4, 5]
Found Entropy: 0
<Window: 421 > X:[ 4 , 5 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 422 > X:[4,5] Y:[-8,-7]
Found Entropy: 0
```

```
<Window: 423 > X:[ 4 , 5 ] Y:[ -7 , -6 ]
Found Entropy: 0
\{\text{Window: } 424 > X:[4,5] Y:[-6,-5]
Found Entropy: 0
\langle \text{Window}: 425 \rangle X: [4, 5] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 426 \rangle X: [4, 5] Y: [-4, -3]
Found Entropy: 0
\{\text{Window: } 427 > X: [4, 5] Y: [-3, -2]
Found Entropy: 0
\{\text{Window}: 428 > X: [4, 5] Y: [-2, -1]
Found Entropy: 0
<Window: 429 > X:[4,5] Y:[-1,0]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 430 > X:[ 4 , 5 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 431 > X:[4,5] Y:[1,2]
Found Entropy: 0
<Window: 432 > X:[ 4 , 5 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 433 > X:[ 4 , 5 ] Y:[ 3 , 4 ]
Found Entropy: 0
\{\text{Window: } 434 > X: [4, 5] Y: [4, 5]
Found Entropy: 0
\langle Window: 435 \rangle X: [5, 6] Y: [-9, -8]
Found Entropy: 0
<Window: 436 > X:[5,6] Y:[-8,-7]
Found Entropy: 0
<Window: 437 > X:[5,6] Y:[-7,-6]
Found Entropy: 0
<Window: 438 > X:[5,6] Y:[-6,-5]
Found Entropy: 0
<Window: 439 > X:[5,6] Y:[-5,-4]
Found Entropy: 0
<Window: 440 > X:[5,6] Y:[-4,-3]
Found Entropy: 0
<Window: 441 > X:[5,6] Y:[-3,-2]
Found Entropy: 0
<Window: 442 > X:[5,6] Y:[-2,-1]
Found Entropy: 0
<Window: 443 > X:[5,6] Y:[-1,0]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
<Window: 444 > X:[5,6] Y:[0,1]
Found a sample of class: 0
```

```
Found a sample of class: 0
Found Entropy: 0.0
<Window: 445 > X:[ 5 , 6 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 446 > X:[ 5 , 6 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 447 > X:[ 5 , 6 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 448 > X:[5,6] Y:[4,5]
Found Entropy: 0
\langle Window: 449 \rangle X: [6, 7] Y: [-9, -8]
Found Entropy: 0
<Window: 450 > X:[ 6 , 7 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 451 > X:[ 6 , 7 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 452 > X:[6,7] Y:[-6,-5]
Found Entropy: 0
<Window: 453 > X:[6, 7] Y:[-5, -4]
Found Entropy: 0
<Window: 454 > X:[6,7] Y:[-4,-3]
Found Entropy: 0
<Window: 455 > X:[ 6 , 7 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 456 > X:[ 6 , 7 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 457 > X:[6,7] Y:[-1,0]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.6365141682948128
<Window: 458 > X:[6,7] Y:[0,1]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 459 > X:[ 6 , 7 ] Y:[ 1 , 2 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 460 > X:[6,7] Y:[2,3]
Found Entropy: 0
<Window: 461 > X:[ 6 , 7 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 462 > X:[ 6 , 7 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 463 > X:[ 7 , 8 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 464 > X:[ 7 , 8 ] Y:[ -8 , -7 ]
```

```
Found Entropy: 0
<Window: 465 > X:[7,8] Y:[-7,-6]
Found Entropy: 0
<Window: 466 > X:[7,8] Y:[-6,-5]
Found Entropy: 0
<Window: 467 > X:[ 7 , 8 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 468 > X:[ 7 , 8 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 469 > X:[ 7 , 8 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 470 > X:[7,8] Y:[-2,-1]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 471 > X:[ 7 , 8 ] Y:[ -1 , 0 ]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\{\text{Window: } 472 > X:[7,8] Y:[0,1]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 1.0397207708399179
<Window: 473 > X:[ 7 , 8 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 474 > X:[7,8] Y:[2,3]
Found Entropy: 0
<Window: 475 > X:[ 7 , 8 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 476 > X:[7,8] Y:[4,5]
Found Entropy: 0
<Window: 477 > X:[8,9] Y:[-9,-8]
Found Entropy: 0
\langle Window: 478 \rangle X:[8,9] Y:[-8,-7]
Found Entropy: 0
\langle \text{Window}: 479 \rangle X: [8, 9] Y: [-7, -6]
Found Entropy: 0
<Window: 480 > X:[8,9] Y:[-6,-5]
Found Entropy: 0
<Window: 481 > X:[8, 9] Y:[-5, -4]
Found Entropy: 0
<Window: 482 > X:[8,9] Y:[-4,-3]
Found Entropy: 0
<Window: 483 > X:[8, 9] Y:[-3, -2]
Found Entropy: 0
<Window: 484 > X:[8, 9] Y:[-2, -1]
Found Entropy: 0
```

```
<Window: 485 > X:[8,9] Y:[-1,0]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 0.6365141682948128
<Window: 486 > X:[8, 9] Y:[0, 1]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 487 > X:[ 8 , 9 ] Y:[ 1 , 2 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 488 > X:[8,9] Y:[2,3]
Found Entropy: 0
<Window: 489 > X:[8, 9] Y:[3, 4]
Found Entropy: 0
<Window: 490 > X:[8, 9] Y:[4, 5]
Found Entropy: 0
\forall \text{Window: } 491 > X:[9, 10] Y:[-9, -8]
Found Entropy: 0
<Window: 492 > X:[ 9 , 10 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 493 > X:[ 9 , 10 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 494 > X:[ 9 , 10 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 495 \rangle X: [9, 10] Y: [-5, -4]
Found Entropy: 0
<Window: 496 > X:[ 9 , 10 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 497 > X:[9, 10] Y:[-3, -2]
Found Entropy: 0
<Window: 498 > X:[ 9 , 10 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 499 > X:[ 9 , 10 ] Y:[ -1 , 0 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 500 > X:[ 9 , 10 ] Y:[ 0 , 1 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 501 > X:[ 9 , 10 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 502 > X:[ 9 , 10 ] Y:[ 2 , 3 ]
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 503 > X:[ 9 , 10 ] Y:[ 3 , 4 ]
Found Entropy: 0
```

```
<Window: 504 > X:[ 9 , 10 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 505 > X:[ 10 , 11 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 506 > X:[ 10 , 11 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 507 > X:[ 10 , 11 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 508 > X:[ 10 , 11 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 509 > X:[ 10 , 11 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window: 510} \rangle \text{ X:[ 10 , 11 ] Y:[ -4 , -3 ]}
Found Entropy: 0
\forall X:[10, 11] Y:[-3, -2]
Found Entropy: 0
\forall X:[10, 11] Y:[-2, -1]
Found Entropy: 0
<Window: 513 > X:[ 10 , 11 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 514 > X:[ 10 , 11 ] Y:[ 0 , 1 ]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 1.0397207708399179
<Window: 515 > X:[ 10 , 11 ] Y:[ 1 , 2 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 516 > X:[ 10 , 11 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 517 > X:[ 10 , 11 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 518 > X:[ 10 , 11 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 519 > X:[ 11 , 12 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 520 > X:[ 11 , 12 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window: 521} \rangle X: [11, 12] Y: [-7, -6]
Found Entropy: 0
<Window: 522 > X:[ 11 , 12 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 523 > X:[ 11 , 12 ] Y:[ -5 , -4 ]
Found Entropy: 0
\forall Window: 524 > X:[ 11 , 12 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 525 > X:[11, 12] Y:[-3, -2]
```

```
Found Entropy: 0
<Window: 526 > X:[ 11 , 12 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 527 > X:[ 11 , 12 ] Y:[ -1 , 0 ]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
<Window: 528 > X:[ 11 , 12 ] Y:[ 0 , 1 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 529 > X:[ 11 , 12 ] Y:[ 1 , 2 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 530 > X:[ 11 , 12 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.6931471805599453
<Window: 531 > X:[ 11 , 12 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 532 > X:[ 11 , 12 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 533 > X:[ 12 , 13 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 534 \rangle X: [12, 13] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window: 535} \rangle X: [12, 13] Y: [-7, -6]
Found Entropy: 0
<Window: 536 > X:[ 12 , 13 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 537 > X:[ 12 , 13 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window: 538} \rangle \text{ X:[ 12 , 13 ] Y:[ -4 , -3 ]}
Found Entropy: 0
\langle \text{Window: } 539 \rangle \ \text{X:} [ 12 , 13 ] \ \text{Y:} [ -3 , -2 ]
Found Entropy: 0
\langle \text{Window: 540} \rangle \text{ X:[ 12 , 13 ] Y:[ -2 , -1 ]}
Found Entropy: 0
<Window: 541 > X:[ 12 , 13 ] Y:[ -1 , 0 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 542 > X:[ 12 , 13 ] Y:[ 0 , 1 ]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.6365141682948128
<Window: 543 > X:[ 12 , 13 ] Y:[ 1 , 2 ]
```

```
Found a sample of class: 0
Found Entropy: 0.0
<Window: 544 > X:[ 12 , 13 ] Y:[ 2 , 3 ]
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.6931471805599453
<Window: 545 > X:[ 12 , 13 ] Y:[ 3 , 4 ]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.5623351446188083
<Window: 546 > X:[ 12 , 13 ] Y:[ 4 , 5 ]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.6365141682948128
\langle \text{Window: 547} \rangle X: [13, 14] Y: [-9, -8]
Found Entropy: 0
<Window: 548 > X:[ 13 , 14 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window: 549} \rangle X: [13, 14] Y: [-7, -6]
Found Entropy: 0
<Window: 550 > X:[ 13 , 14 ] Y:[ -6 , -5 ]
Found Entropy: 0
\forall Window: 551 > X:[ 13 , 14 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 552 \rangle X: [13, 14] Y: [-4, -3]
Found Entropy: 0
<Window: 553 > X:[ 13 , 14 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 554 > X:[ 13 , 14 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 555 > X:[ 13 , 14 ] Y:[ -1 , 0 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 556 > X:[ 13 , 14 ] Y:[ 0 , 1 ]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
<Window: 557 > X:[ 13 , 14 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 558 > X:[ 13 , 14 ] Y:[ 2 , 3 ]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.6365141682948128
<Window: 559 > X:[ 13 , 14 ] Y:[ 3 , 4 ]
```

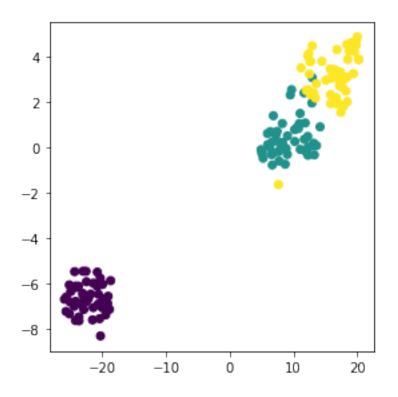
```
Found Entropy: 0
<Window: 560 > X:[ 13 , 14 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 561 > X:[14, 15] Y:[-9, -8]
Found Entropy: 0
<Window: 562 > X:[ 14 , 15 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 563 > X:[ 14 , 15 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 564 > X:[ 14 , 15 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 565 > X:[ 14 , 15 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 566 > X:[ 14 , 15 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 567 \rangle X: [14, 15] Y: [-3, -2]
Found Entropy: 0
<Window: 568 > X:[ 14 , 15 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 569 > X:[ 14 , 15 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 570 > X:[ 14 , 15 ] Y:[ 0 , 1 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 571 > X:[ 14 , 15 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 572 > X:[ 14 , 15 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 573 > X:[ 14 , 15 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 574 > X:[ 14 , 15 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 575 > X:[ 15 , 16 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 576 > X:[ 15 , 16 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 577 > X:[ 15 , 16 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 578 > X:[ 15 , 16 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 579 > X:[ 15 , 16 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 580 > X:[ 15 , 16 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: 581} \rangle \text{ X:[ 15 , 16 ] Y:[ -3 , -2 ]}
Found Entropy: 0
\langle \text{Window: 582} \rangle X: [15, 16] Y: [-2, -1]
```

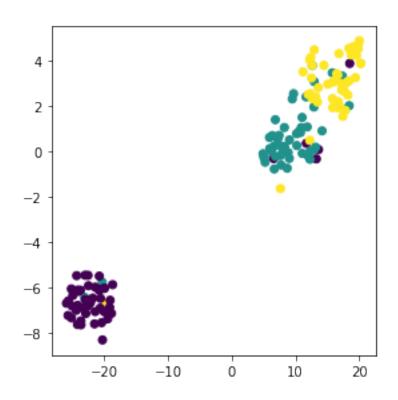
```
Found Entropy: 0
<Window: 583 > X:[ 15 , 16 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 584 > X:[ 15 , 16 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 585 > X:[ 15 , 16 ] Y:[ 1 , 2 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 586 > X:[ 15 , 16 ] Y:[ 2 , 3 ]
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 587 > X:[ 15 , 16 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 588 > X:[ 15 , 16 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 589 > X:[ 16 , 17 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 590 > X:[ 16 , 17 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 591 > X:[ 16 , 17 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 592 > X:[ 16 , 17 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 593 > X:[ 16 , 17 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 594 > X:[ 16 , 17 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: 595} \rangle X: [16, 17] Y: [-3, -2]
Found Entropy: 0
<Window: 596 > X:[ 16 , 17 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 597 > X:[ 16 , 17 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 598 > X:[ 16 , 17 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 599 > X:[ 16 , 17 ] Y:[ 1 , 2 ]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 600 > X:[ 16 , 17 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 601 > X:[ 16 , 17 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found a sample of class: 0
```

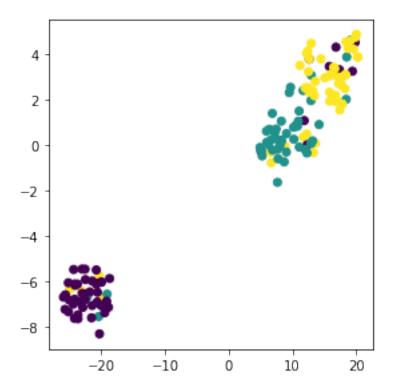
```
Found a sample of class: 0
Found Entropy: 0.6365141682948128
<Window: 602 > X:[ 16 , 17 ] Y:[ 4 , 5 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 603 > X:[ 17 , 18 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window: } 604 \rangle \text{ X:} [17, 18] \text{ Y:} [-8, -7]
Found Entropy: 0
<Window: 605 > X:[ 17 , 18 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 606 > X:[ 17 , 18 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 607 > X:[ 17 , 18 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 608 > X:[ 17 , 18 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 609 \rangle \ \text{X:[} 17 , 18 \ ] \ \text{Y:[} -3 , -2 \ ]
Found Entropy: 0
<Window: 610 > X:[ 17 , 18 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 611 > X:[ 17 , 18 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 612 > X:[ 17 , 18 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 613 > X:[ 17 , 18 ] Y:[ 1 , 2 ]
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 614 > X:[ 17 , 18 ] Y:[ 2 , 3 ]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 0.6931471805599453
<Window: 615 > X:[ 17 , 18 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 616 > X:[ 17 , 18 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 617 > X:[ 18 , 19 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 618 > X:[ 18 , 19 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 619 > X:[ 18 , 19 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 620 > X:[ 18 , 19 ] Y:[ -6 , -5 ]
Found Entropy: 0
```

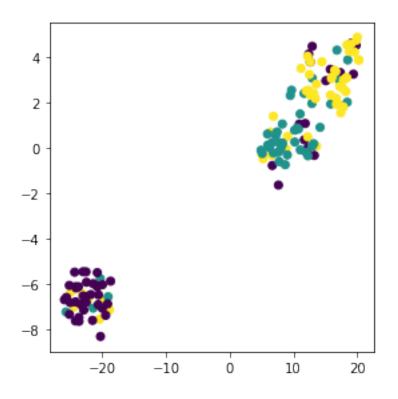
```
\langle \text{Window: } 621 \rangle X: [18, 19] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window: } 622 \rangle \text{ X:} [ 18 , 19 ] \text{ Y:} [ -4 , -3 ]
Found Entropy: 0
\{Window: 623 > X:[18, 19] Y:[-3, -2]
Found Entropy: 0
\langle \text{Window}: 624 \rangle X: [18, 19] Y: [-2, -1]
Found Entropy: 0
<Window: 625 > X:[ 18 , 19 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 626 > X:[ 18 , 19 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 627 > X:[ 18 , 19 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 628 > X:[ 18 , 19 ] Y:[ 2 , 3 ]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 629 > X:[ 18 , 19 ] Y:[ 3 , 4 ]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.6365141682948128
<Window: 630 > X:[ 18 , 19 ] Y:[ 4 , 5 ]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
<Window: 631 > X:[ 19 , 20 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 632 > X:[ 19 , 20 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 633 > X:[ 19 , 20 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 634 > X:[ 19 , 20 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 635 \rangle \text{ X:} [19, 20] \text{ Y:} [-5, -4]
Found Entropy: 0
\langle \text{Window: } 636 \rangle \text{ X:} [19, 20] \text{ Y:} [-4, -3]
Found Entropy: 0
\langle \text{Window: } 637 \rangle \text{ X:} [19, 20] \text{ Y:} [-3, -2]
Found Entropy: 0
<Window: 638 > X:[ 19 , 20 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 639 > X:[ 19 , 20 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 640 > X:[ 19 , 20 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 641 > X:[ 19 , 20 ] Y:[ 1 , 2 ]
```

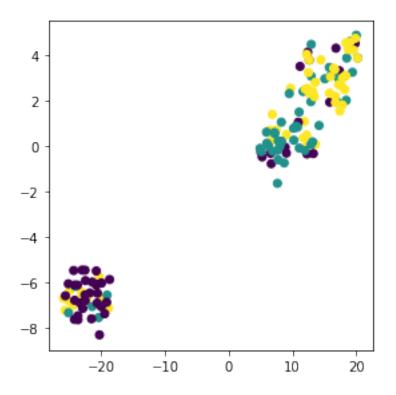
```
Found Entropy: 0
<Window: 642 > X:[19, 20] Y:[2, 3]
Found Entropy: 0
<Window: 643 > X:[ 19 , 20 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 644 > X:[ 19 , 20 ] Y:[ 4 , 5 ]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.6730116670092565
<Window: 645 > X:[ 20 , 21 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 646 > X:[ 20 , 21 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 647 > X:[ 20 , 21 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 648 > X:[ 20 , 21 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 649 \rangle X: [20, 21] Y: [-5, -4]
Found Entropy: 0
\{Window: 650 > X: [20, 21] Y: [-4, -3] <math>\}
Found Entropy: 0
\{Window: 651 > X: [20, 21] Y: [-3, -2] \}
Found Entropy: 0
\langle \text{Window: } 652 \rangle \text{ X:} [ 20 , 21 ] \text{ Y:} [ -2 , -1 ]
Found Entropy: 0
<Window: 653 > X:[ 20 , 21 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 654 > X:[20, 21] Y:[0, 1]
Found Entropy: 0
<Window: 655 > X:[ 20 , 21 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 656 > X:[ 20 , 21 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 657 > X:[ 20 , 21 ] Y:[ 3 , 4 ]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
<Window: 658 > X:[ 20 , 21 ] Y:[ 4 , 5 ]
Found a sample of class: 1
Found Entropy: 0.0
Total Count: 658
Expected Count: 658
OKAY: True
----Done--- 20.972251062483927
```

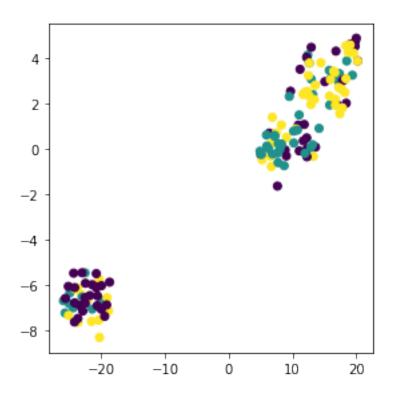


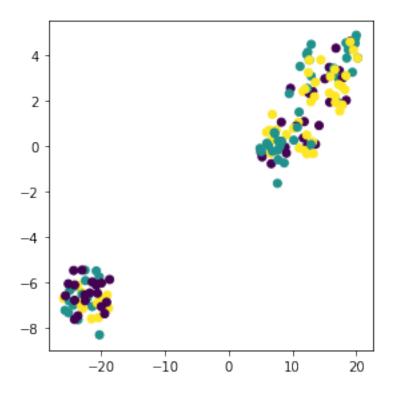


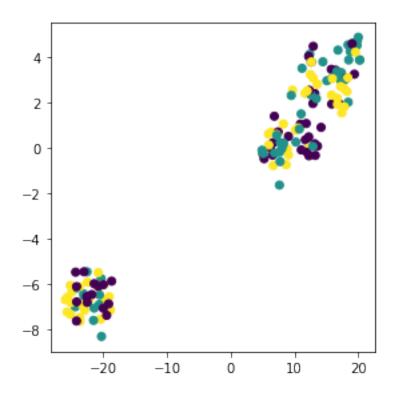


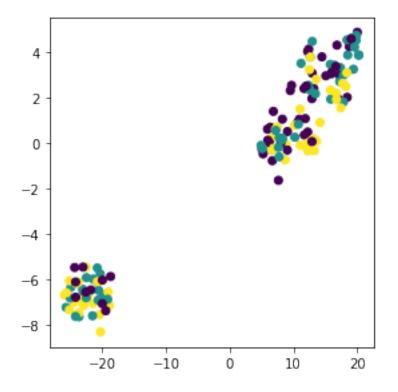


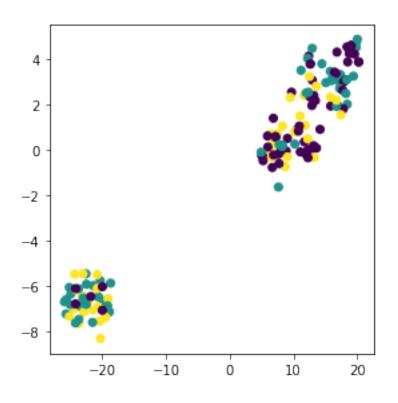












Entropy vs Noise when window = 1 25 - 20 - 40 | 15 - 10 - 5 - 0 | 40 | 60 | 80 | #Noise

```
Found Entropy: 0
\{\text{Window: 2 > X:[-26,-25] Y:[-8,-7]}
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
<Window: 3 > X:[ -26 , -25 ] Y:[ -7 , -6 ]
Found a sample of class: 0
Found Entropy: 0.0
\{\text{Window: 4} > \text{X:[-26,-25]} \text{Y:[-6,-5]}
Found Entropy: 0
\langle \text{Window}: 5 \rangle X: [-26, -25] Y: [-5, -4]
Found Entropy: 0
<Window: 6 > X:[ -26 , -25 ] Y:[ -4 , -3 ]
Found Entropy: 0
\{\text{Window}: 7 > X: [-26, -25] Y: [-3, -2]\}
Found Entropy: 0
\{\text{Window: 8 > X:[-26,-25] Y:[-2,-1]}
Found Entropy: 0
<Window: 9 > X:[ -26 , -25 ] Y:[ -1 , 0 ]
Found Entropy: 0
\{\text{Window: } 10 > \text{X:} [-26, -25] \text{ Y:} [0, 1]
Found Entropy: 0
\{Window: 11 > X:[-26, -25] Y:[1, 2]
Found Entropy: 0
\langle \text{Window}: 12 \rangle X: [-26, -25] Y: [2, 3]
Found Entropy: 0
<Window: 13 > X:[ -26 , -25 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 14 > X:[ -26 , -25 ] Y:[ 4 , 5 ]
Found Entropy: 0
\{Window: 15 > X: [ -25 , -24 ] Y: [ -9 , -8 ]
Found Entropy: 0
<Window: 16 > X:[ -25 , -24 ] Y:[ -8 , -7 ]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 17 > X:[-25, -24] Y:[-7, -6]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 18 \rangle X: [-25, -24] Y: [-6, -5]
Found a sample of class: 0
Found Entropy: 0.0
```

```
\langle \text{Window}: 19 \rangle X: [-25, -24] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 20 \rangle X: [-25, -24] Y: [-4, -3]
Found Entropy: 0
\{Window: 21 > X:[ -25 , -24 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window}: 22 \rangle X: [-25, -24] Y: [-2, -1]
Found Entropy: 0
<Window: 23 > X:[ -25 , -24 ] Y:[ -1 , 0 ]
Found Entropy: 0
\langle \text{Window}: 24 \rangle X: [-25, -24] Y: [0, 1]
Found Entropy: 0
\langle \text{Window}: 25 \rangle X: [-25, -24] Y: [1, 2]
Found Entropy: 0
<Window: 26 > X:[ -25 , -24 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 27 > X:[ -25 , -24 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 28 > X:[-25, -24] Y:[4, 5]
Found Entropy: 0
\{Window: 29 \} X: [ -24 , -23 ] Y: [ -9 , -8 ]
Found Entropy: 0
\langle \text{Window: } 30 \rangle \text{ X: } [-24, -23] \text{ Y: } [-8, -7]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 31 \rangle X: [-24, -23] Y: [-7, -6]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 32 > X:[ -24 , -23 ] Y:[ -6 , -5 ]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 33 \rangle X: [-24, -23] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 34 \rangle X: [-24, -23] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 35 \rangle X: [-24, -23] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 36 \rangle X: [-24, -23] Y: [-2, -1]
Found Entropy: 0
<Window: 37 > X:[-24, -23] Y:[-1, 0]
Found Entropy: 0
<Window: 38 > X:[ -24 , -23 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window: } 39 \rangle \text{ X:} [ -24 , -23 ] \text{ Y:} [ 1 , 2 ]
```

```
Found Entropy: 0
\forall 1 = 1  \forall 1 = 1  \forall 2 = 1  \forall 3 = 1  \forall 4 = 1  \forall 5 = 1  \forall 5 = 1  \forall 6 = 1 
Found Entropy: 0
<Window: 41 > X:[-24, -23] Y:[3, 4]
Found Entropy: 0
\{\text{Window: } 42 > X: [-24, -23] Y: [4, 5]
Found Entropy: 0
\langle \text{Window: } 43 \rangle \ \text{X:[} -23 \ , -22 \ ] \ \text{Y:[} -9 \ , -8 \ ]
Found Entropy: 0
\langle \text{Window}: 44 \rangle X: [-23, -22] Y: [-8, -7]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 45 \rangle X: [-23, -22] Y: [-7, -6]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 46 > X:[-23, -22] Y:[-6, -5]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window: } 47 \rangle \text{ X: [ } -23 \text{ , } -22 \text{ ] } \text{ Y: [ } -5 \text{ , } -4 \text{ ]}
Found Entropy: 0
\langle \text{Window}: 48 \rangle X: [-23, -22] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 49 \rangle X: [-23, -22] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 50 \rangle X: [-23, -22] Y: [-2, -1]
Found Entropy: 0
\{\text{Window: 51} > \text{X:[-23,-22]} \text{Y:[-1,0]}
Found Entropy: 0
<Window: 52 > X:[ -23 , -22 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 53 > X:[ -23 , -22 ] Y:[ 1 , 2 ]
Found Entropy: 0
\{\text{Window: } 54 > X: [-23, -22] Y: [2, 3]
Found Entropy: 0
\{\text{Window: } 55 > X:[-23, -22] Y:[3, 4]
Found Entropy: 0
<Window: 56 > X:[-23, -22] Y:[4, 5]
Found Entropy: 0
\langle \text{Window}: 57 \rangle X: [-22, -21] Y: [-9, -8]
Found Entropy: 0
<Window: 58 > X:[ -22 , -21 ] Y:[ -8 , -7 ]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
```

```
\langle \text{Window}: 59 \rangle X: [-22, -21] Y: [-7, -6]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 60 \rangle X: [-22, -21] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 61 \rangle X: [-22, -21] Y: [-5, -4]
Found Entropy: 0
\{\text{Window: } 62 > X:[-22, -21] Y:[-4, -3]
Found Entropy: 0
\{\text{Window: } 63 > X: [-22, -21] \ Y: [-3, -2] \}
Found Entropy: 0
\{\text{Window: } 64 > \text{X:} [-22, -21] \text{ Y:} [-2, -1] \}
Found Entropy: 0
<Window: 65 > X:[ -22 , -21 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 66 > X:[ -22 , -21 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 67 > X:[ -22 , -21 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 68 > X:[ -22 , -21 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 69 > X:[ -22 , -21 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window}: 70 \rangle X: [-22, -21] Y: [4, 5]
Found Entropy: 0
\{Window: 71 > X:[ -21 , -20 ] Y:[ -9 , -8 ]
Found a sample of class: 0
Found Entropy: 0.0
\{\text{Window: 72} > \text{X:} [-21, -20] \text{ Y:} [-8, -7] \}
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 73 \rangle X: [-21, -20] Y: [-7, -6]
Found a sample of class: 0
Found Entropy: 0.0
\{\text{Window: } 74 > \text{X:} [-21, -20] \text{ Y:} [-6, -5] \}
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\forall Window: 75 > X:[ -21 , -20 ] Y:[ -5 , -4 ]
Found Entropy: 0
```

```
\langle \text{Window}: 76 \rangle X: [-21, -20] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 77 > X: [-21, -20] Y: [-3, -2]
Found Entropy: 0
\{Window: 78 > X:[ -21 , -20 ] Y:[ -2 , -1 ]
Found Entropy: 0
\langle \text{Window}: 79 \rangle X: [-21, -20] Y: [-1, 0]
Found Entropy: 0
<Window: 80 > X:[ -21 , -20 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 81 \rangle X: [-21, -20] Y: [1, 2]
Found Entropy: 0
\{\text{Window: 82} > \text{X:[-21,-20]} \text{Y:[2,3]}
Found Entropy: 0
<Window: 83 > X:[ -21 , -20 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 84 > X:[ -21 , -20 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 85 \rangle \text{ X: [ } -20 \text{ , } -19 \text{ ] } \text{ Y: [ } -9 \text{ , } -8 \text{ ]}
Found Entropy: 0
<Window: 86 > X:[ -20 , -19 ] Y:[ -8 , -7 ]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 87 \rangle X: [-20, -19] Y: [-7, -6]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 88 > X:[ -20 , -19 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: 89} \rangle \text{ X: [ -20 , -19 ] Y: [ -5 , -4 ]}
Found Entropy: 0
\{Window: 90 > X:[ -20 , -19 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 91 \rangle \ \text{X:[} -20 \ , -19 \ ] \ \text{Y:[} -3 \ , -2 \ ]
Found Entropy: 0
\langle \text{Window: } 92 \rangle \ \text{X:[} -20 \ , -19 \ ] \ \text{Y:[} -2 \ , -1 \ ]
Found Entropy: 0
\langle \text{Window: } 93 \rangle \ \text{X:[} -20 \ , -19 \ ] \ \text{Y:[} -1 \ , 0 \ ]
Found Entropy: 0
<Window: 94 > X:[ -20 , -19 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window: 95} \rangle X: [-20, -19] Y: [1, 2]
Found Entropy: 0
<Window: 96 > X:[ -20 , -19 ] Y:[ 2 , 3 ]
Found Entropy: 0
\langle \text{Window: } 97 \rangle \text{ X:[} -20 , -19 ] \text{ Y:[} 3 , 4 ]
```

```
Found Entropy: 0
\forall 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.
Found Entropy: 0
\forall 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.
Found Entropy: 0
<Window: 100 > X:[ -19 , -18 ] Y:[ -8 , -7 ]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 101 \rangle X: [-19, -18] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 102 \rangle X: [-19, -18] Y: [-6, -5]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 103 > X:[ -19 , -18 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 104 \rangle X: [-19, -18] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window: } 105 \rangle \text{ X:[} -19 , -18 ] \text{ Y:[} -3 , -2 ]
Found Entropy: 0
\langle \text{Window}: 106 \rangle X: [-19, -18] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window: } 107 \rangle \text{ X:[} -19 , -18 ] \text{ Y:[} -1 , 0 ]
Found Entropy: 0
<Window: 108 > X:[ -19 , -18 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 109 \rangle X: [-19, -18] Y: [1, 2]
Found Entropy: 0
\langle \text{Window: } 110 \rangle \ \text{X:[} -19 \ , -18 \ ] \ \text{Y:[} 2 \ , 3 \ ]
Found Entropy: 0
<Window: 111 > X:[ -19 , -18 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window: } 112 \rangle \ \text{X:[} -19 \ , -18 \ ] \ \text{Y:[} 4 \ , 5 \ ]
Found Entropy: 0
\{Window: 113 > X:[-18, -17] Y:[-9, -8]
Found Entropy: 0
\langle \text{Window}: 114 > X:[-18, -17] Y:[-8, -7]
Found Entropy: 0
\langle \text{Window}: 115 \rangle X: [-18, -17] Y: [-7, -6]
Found Entropy: 0
<Window: 116 > X:[ -18 , -17 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 117 > X:[ -18 , -17 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 118 > X:[ -18 , -17 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 119 \rangle \ \text{X:[} -18 \ , -17 \ ] \ \text{Y:[} -3 \ , -2 \ ]
Found Entropy: 0
\forall Window: 120 > X:[ -18 , -17 ] Y:[ -2 , -1 ]
```

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Found Entropy: 0
\forall x \in X : [-18, -17] Y : [-1, 0]
Found Entropy: 0
<Window: 122 > X:[ -18 , -17 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 123 > X:[ -18 , -17 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window: } 124 \rangle \ \text{X:[} -18 \ , -17 \ ] \ \text{Y:[} 2 \ , 3 \ ]
Found Entropy: 0
<Window: 125 > X:[ -18 , -17 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 126 > X:[ -18 , -17 ] Y:[ 4 , 5 ]
Found Entropy: 0
\forall x = 127 > x = 127 > x = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 12
Found Entropy: 0
\forall Window: 128 > X:[ -17 , -16 ] Y:[ -8 , -7 ]
Found Entropy: 0
\forall \text{Window: } 129 > X:[-17, -16] Y:[-7, -6]
Found Entropy: 0
\langle \text{Window}: 130 \rangle X: [-17, -16] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window: } 131 \rangle \ \text{X:[} -17 \ , -16 \ ] \ \text{Y:[} -5 \ , -4 \ ]
Found Entropy: 0
\langle \text{Window}: 132 \rangle X: [-17, -16] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 133 \rangle X: [-17, -16] Y: [-3, -2]
Found Entropy: 0
\forall \text{Window: } 134 > X:[-17, -16] Y:[-2, -1]
Found Entropy: 0
<Window: 135 > X:[ -17 , -16 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 136 > X:[ -17 , -16 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 137 > X:[ -17 , -16 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window: } 138 \rangle \ \text{X:[} -17 \ , -16 \ ] \ \text{Y:[} 2 \ , 3 \ ]
Found Entropy: 0
\langle \text{Window: } 139 \rangle \ \text{X:[} -17 \ , -16 \ ] \ \text{Y:[} 3 \ , 4 \ ]
Found Entropy: 0
\langle \text{Window: } 140 \rangle \ \text{X:[} -17 \ , -16 \ ] \ \text{Y:[} 4 \ , 5 \ ]
Found Entropy: 0
<Window: 141 > X:[ -16 , -15 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window: } 142 \rangle \text{ X:[} -16 , -15 ] \text{ Y:[} -8 , -7 ]
Found Entropy: 0
\langle \text{Window}: 143 \rangle X: [-16, -15] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 144 \rangle X: [-16, -15] Y: [-6, -5]
```

```
Found Entropy: 0
<Window: 145 > X:[ -16 , -15 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 146 > X:[ -16 , -15 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 147 > X:[ -16 , -15 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window: } 148 \rangle \ \text{X:[} -16 \ , -15 \ ] \ \text{Y:[} -2 \ , -1 \ ]
Found Entropy: 0
\langle \text{Window}: 149 \rangle X: [-16, -15] Y: [-1, 0]
Found Entropy: 0
<Window: 150 > X:[ -16 , -15 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 151 > X:[ -16 , -15 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window}: 152 \rangle X: [-16, -15] Y: [2, 3]
Found Entropy: 0
<Window: 153 > X:[ -16 , -15 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 154 > X:[ -16 , -15 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 155 > X:[ -15 , -14 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 156 > X:[ -15 , -14 ] Y:[ -8 , -7 ]
Found Entropy: 0
\{Window: 157 > X: [ -15 , -14 ] Y: [ -7 , -6 ] 
Found Entropy: 0
\langle \text{Window}: 158 \rangle X: [-15, -14] Y: [-6, -5]
Found Entropy: 0
\langle Window: 159 \rangle X: [ -15 , -14 ] Y: [ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 160 \rangle X: [-15, -14] Y: [-4, -3]
Found Entropy: 0
\{Window: 161 > X:[-15, -14] Y:[-3, -2]
Found Entropy: 0
\langle \text{Window}: 162 \rangle X: [-15, -14] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 163 \rangle X: [-15, -14] Y: [-1, 0]
Found Entropy: 0
<Window: 164 > X:[ -15 , -14 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 165 > X:[ -15 , -14 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 166 > X:[ -15 , -14 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 167 > X:[ -15 , -14 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window: } 168 \rangle \ \text{X:[} -15 \ , -14 \ ] \ \text{Y:[} 4 \ , 5 \ ]
```

```
Found Entropy: 0
\langle Window: 169 \rangle X: [ -14 , -13 ] Y: [ -9 , -8 ]
Found Entropy: 0
<Window: 170 > X:[ -14 , -13 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window}: 171 > X:[-14, -13] Y:[-7, -6]
Found Entropy: 0
\langle \text{Window}: 172 \rangle X: [-14, -13] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 173 \rangle X: [-14, -13] Y: [-5, -4]
Found Entropy: 0
\forall x = 174 > x : [ -14 , -13 ] Y : [ -4 , -3 ]
Found Entropy: 0
\forall \text{Window: } 175 > X:[-14, -13] Y:[-3, -2]
Found Entropy: 0
\forall \text{Window: } 176 > X:[-14, -13] Y:[-2, -1]
Found Entropy: 0
<Window: 177 > X:[ -14 , -13 ] Y:[ -1 , 0 ]
Found Entropy: 0
\langle \text{Window}: 178 \rangle X: [-14, -13] Y: [0, 1]
Found Entropy: 0
\langle \text{Window: } 179 \rangle \ \text{X:[} -14 \ , -13 \ ] \ \text{Y:[} 1 \ , 2 \ ]
Found Entropy: 0
\langle \text{Window}: 180 \rangle X: [-14, -13] Y: [2, 3]
Found Entropy: 0
\langle \text{Window}: 181 \rangle X: [-14, -13] Y: [3, 4]
Found Entropy: 0
\langle \text{Window: } 182 \rangle \ \text{X:[} -14 \ , -13 \ ] \ \text{Y:[} 4 \ , 5 \ ]
Found Entropy: 0
\langle \text{Window}: 183 \rangle X: [-13, -12] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window: } 184 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} -8 \ , -7 \ ]
Found Entropy: 0
\{Window: 185 > X:[-13, -12] Y:[-7, -6]
Found Entropy: 0
\langle \text{Window: } 186 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} -6 \ , -5 \ ]
Found Entropy: 0
\langle \text{Window: } 187 \rangle \text{ X:[} -13 , -12 ] \text{ Y:[} -5 , -4 ]
Found Entropy: 0
\langle \text{Window: } 188 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} -4 \ , -3 \ ]
Found Entropy: 0
<Window: 189 > X:[ -13 , -12 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 190 > X:[ -13 , -12 ] Y:[ -2 , -1 ]
Found Entropy: 0
\langle \text{Window: 191} \rangle X: [-13, -12] Y: [-1, 0]
Found Entropy: 0
\forall \text{Window: } 192 > X:[-13, -12] Y:[0, 1]
```

```
Found Entropy: 0
\langle \text{Window: 193} \rangle X: [-13, -12] Y: [1, 2]
Found Entropy: 0
\forall 194 > X:[-13, -12] Y:[2, 3]
Found Entropy: 0
\langle \text{Window: } 195 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} 3 \ , 4 \ ]
Found Entropy: 0
\langle \text{Window: } 196 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} 4 \ , 5 \ ]
Found Entropy: 0
\langle \text{Window}: 197 \rangle X: [-12, -11] Y: [-9, -8]
Found Entropy: 0
\forall \text{Window: } 198 > X:[-12, -11] Y:[-8, -7]
Found Entropy: 0
<Window: 199 > X:[ -12 , -11 ] Y:[ -7 , -6 ]
Found Entropy: 0
\langle \text{Window: } 200 \rangle \text{ X:[} -12 , -11 ] \text{ Y:[} -6 , -5 ]
Found Entropy: 0
\forall X:[-12, -11] Y:[-5, -4]
Found Entropy: 0
\langle \text{Window}: 202 \rangle X: [-12, -11] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 203 \rangle X: [-12, -11] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 204 \rangle X: [-12, -11] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 205 \rangle X: [-12, -11] Y: [-1, 0]
Found Entropy: 0
\langle \text{Window}: 206 \rangle X: [-12, -11] Y: [0, 1]
Found Entropy: 0
\forall X: [-12, -11] Y: [1, 2]
Found Entropy: 0
\forall X: [-12, -11] Y: [2, 3]
Found Entropy: 0
\{Window: 209 > X:[-12, -11] Y:[3, 4]
Found Entropy: 0
\langle \text{Window}: 210 \rangle X: [-12, -11] Y: [4, 5]
Found Entropy: 0
<Window: 211 > X:[ -11 , -10 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 212 > X:[ -11 , -10 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 213 > X:[ -11 , -10 ] Y:[ -7 , -6 ]
Found Entropy: 0
\forall X:[-11, -10] Y:[-6, -5]
Found Entropy: 0
\langle \text{Window}: 215 \rangle X: [-11, -10] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 216 \rangle X: [-11, -10] Y: [-4, -3]
```

```
Found Entropy: 0
<Window: 217 > X:[ -11 , -10 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 218 > X:[ -11 , -10 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 219 > X:[ -11 , -10 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 220 > X:[ -11 , -10 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 221 > X:[ -11 , -10 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window: } 222 \rangle X:[-11, -10] Y:[2, 3]
Found Entropy: 0
<Window: 223 > X:[ -11 , -10 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window}: 224 \rangle X: [-11, -10] Y: [4, 5]
Found Entropy: 0
\langle \text{Window: } 225 \rangle \text{ X:[} -10 , -9 ] \text{ Y:[} -9 , -8 ]
Found Entropy: 0
<Window: 226 > X:[ -10 , -9 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window}: 227 \rangle X: [-10, -9] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 228 \rangle X: [-10, -9] Y: [-6, -5]
Found Entropy: 0
<Window: 229 > X:[ -10 , -9 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 230 \rangle X: [-10, -9] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 231 \rangle X:[-10, -9] Y:[-3, -2]
Found Entropy: 0
\langle \text{Window: } 232 \rangle \text{ X:[} -10 , -9 ] \text{ Y:[} -2 , -1 ]
Found Entropy: 0
\{Window: 233 > X: [-10, -9] Y: [-1, 0]
Found Entropy: 0
<Window: 234 > X:[ -10 , -9 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 235 > X:[ -10 , -9 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 236 > X:[ -10 , -9 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 237 > X:[ -10 , -9 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 238 > X:[ -10 , -9 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 239 \rangle X:[-9, -8] Y:[-9, -8]
Found Entropy: 0
\langle \text{Window: } 240 \rangle \text{ X:[} -9 , -8 ] \text{ Y:[} -8 , -7 ]
```

```
Found Entropy: 0
<Window: 241 > X:[ -9 , -8 ] Y:[ -7 , -6 ]
Found Entropy: 0
\forall X:[-9,-8] Y:[-6,-5]
Found Entropy: 0
<Window: 243 > X:[ -9 , -8 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window: } 244 \rangle \ \text{X:[} -9 \ , -8 \ ] \ \text{Y:[} -4 \ , -3 \ ]
Found Entropy: 0
\langle \text{Window}: 245 \rangle X: [-9, -8] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 246 \rangle X: [-9, -8] Y: [-2, -1]
Found Entropy: 0
<Window: 247 > X:[-9, -8] Y:[-1, 0]
Found Entropy: 0
<Window: 248 > X:[ -9 , -8 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 249 \rangle X:[-9, -8] Y:[1, 2]
Found Entropy: 0
\langle \text{Window}: 250 \rangle X: [-9, -8] Y: [2, 3]
Found Entropy: 0
\langle \text{Window}: 251 \rangle X:[-9, -8] Y:[3, 4]
Found Entropy: 0
<Window: 252 > X:[ -9 , -8 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 253 \rangle X: [-8, -7] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 254 \rangle X: [-8, -7] Y: [-8, -7]
Found Entropy: 0
<Window: 255 > X:[ -8 , -7 ] Y:[ -7 , -6 ]
Found Entropy: 0
\langle \text{Window}: 256 \rangle X: [-8, -7] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 257 \rangle X: [-8, -7] Y: [-5, -4]
Found Entropy: 0
<Window: 258 > X:[ -8 , -7 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 259 \rangle X: [-8, -7] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 260 \rangle X: [-8, -7] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 261 \rangle X: [-8, -7] Y: [-1, 0]
Found Entropy: 0
<Window: 262 > X:[ -8 , -7 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 263 > X:[ -8 , -7 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 264 > X:[ -8 , -7 ] Y:[ 2 , 3 ]
```

```
Found Entropy: 0
<Window: 265 > X:[ -8 , -7 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 266 > X:[ -8 , -7 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 267 \rangle \text{ X:[} -7 , -6 ] \text{ Y:[} -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 268 \rangle X: [-7, -6] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 269 \rangle X: [-7, -6] Y: [-7, -6]
Found Entropy: 0
\forall x = 100 \times 100 \times 100 \times 1000 \times 1000
Found Entropy: 0
\langle \text{Window}: 271 \rangle X: [-7, -6] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 272 \rangle X:[-7,-6] Y:[-4,-3]
Found Entropy: 0
\langle \text{Window}: 273 \rangle X: [-7, -6] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 274 \rangle X: [-7, -6] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 275 \rangle X: [-7, -6] Y: [-1, 0]
Found Entropy: 0
\langle \text{Window}: 276 \rangle X: [-7, -6] Y: [0, 1]
Found Entropy: 0
\langle Window: 277 \rangle X: [-7, -6] Y: [1, 2]
Found Entropy: 0
\langle \text{Window}: 278 \rangle X:[-7,-6] Y:[2,3]
Found Entropy: 0
<Window: 279 > X:[ -7 , -6 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 280 > X:[ -7 , -6 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 281 \rangle X: [-6, -5] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window: } 282 \rangle \ \text{X:[} -6 \ , -5 \ ] \ \text{Y:[} -8 \ , -7 \ ]
Found Entropy: 0
\langle \text{Window: 283} \rangle X: [-6, -5] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window: } 284 \rangle \ \text{X:[} -6 \ , -5 \ ] \ \text{Y:[} -6 \ , -5 \ ]
Found Entropy: 0
<Window: 285 > X:[ -6 , -5 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window: } 286 \rangle \text{ X:} [ -6 , -5 ] \text{ Y:} [ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 287 \rangle \text{ X:[} -6 , -5 ] \text{ Y:[} -3 , -2 ]
Found Entropy: 0
\langle \text{Window: 288} \rangle X: [-6, -5] Y: [-2, -1]
```

```
Found Entropy: 0
<Window: 289 > X:[ -6 , -5 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 290 > X:[ -6 , -5 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 291 > X:[ -6 , -5 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window}: 292 \rangle X: [-6, -5] Y: [2, 3]
Found Entropy: 0
<Window: 293 > X:[ -6 , -5 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 294 > X:[ -6 , -5 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 295 \rangle X:[-5, -4] Y:[-9, -8]
Found Entropy: 0
\langle \text{Window}: 296 \rangle X: [-5, -4] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window: } 297 \rangle X:[-5, -4] Y:[-7, -6]
Found Entropy: 0
<Window: 298 > X:[ -5 , -4 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 299 \rangle \ \text{X:[} -5 \ , -4 \ ] \ \text{Y:[} -5 \ , -4 \ ]
Found Entropy: 0
\langle \text{Window}: 300 \rangle X: [-5, -4] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 301 \rangle X: [-5, -4] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 302 \rangle X: [-5, -4] Y: [-2, -1]
Found Entropy: 0
<Window: 303 > X:[ -5 , -4 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 304 > X:[ -5 , -4 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 305 > X:[-5, -4] Y:[1, 2]
Found Entropy: 0
<Window: 306 > X:[ -5 , -4 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 307 > X:[ -5 , -4 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 308 > X:[ -5 , -4 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 309 \rangle \ \text{X:[} -4 , -3 \ ] \ \text{Y:[} -9 , -8 \ ]
Found Entropy: 0
\langle \text{Window}: 310 \rangle X: [-4, -3] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 311 \rangle X: [-4, -3] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 312 \rangle X: [-4, -3] Y: [-6, -5]
```

```
Found Entropy: 0
<Window: 313 > X:[ -4 , -3 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 314 > X:[ -4 , -3 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 315 > X:[ -4 , -3 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window}: 316 \rangle X: [-4, -3] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window: } 317 \rangle \text{ X: [ } -4 \text{ , } -3 \text{ ] } \text{ Y: [ } -1 \text{ , } 0 \text{ ]}
Found Entropy: 0
<Window: 318 > X:[ -4 , -3 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 319 \rangle X: [-4, -3] Y: [1, 2]
Found Entropy: 0
\langle \text{Window}: 320 \rangle X: [-4, -3] Y: [2, 3]
Found Entropy: 0
\langle \text{Window}: 321 \rangle X: [-4, -3] Y: [3, 4]
Found Entropy: 0
\langle \text{Window}: 322 \rangle X: [-4, -3] Y: [4, 5]
Found Entropy: 0
\langle \text{Window: } 323 \rangle \ \text{X:[} -3 \ , -2 \ ] \ \text{Y:[} -9 \ , -8 \ ]
Found Entropy: 0
\langle \text{Window}: 324 \rangle X: [-3, -2] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 325 \rangle X: [-3, -2] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 326 \rangle X: [-3, -2] Y: [-6, -5]
Found Entropy: 0
<Window: 327 > X:[ -3 , -2 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 328 \rangle X: [-3, -2] Y: [-4, -3]
Found Entropy: 0
\forall X: [-3, -2] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 330 \rangle X: [-3, -2] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window: } 331 \rangle \ \text{X:[} -3 \ , -2 \ ] \ \text{Y:[} -1 \ , 0 \ ]
Found Entropy: 0
<Window: 332 > X:[ -3 , -2 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 333 > X:[ -3 , -2 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 334 > X:[ -3 , -2 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 335 > X:[ -3 , -2 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 336 > X:[ -3 , -2 ] Y:[ 4 , 5 ]
```

```
Found Entropy: 0
\langle \text{Window: } 337 \rangle \text{ X:} [-2, -1] \text{ Y:} [-9, -8]
Found Entropy: 0
<Window: 338 > X:[ -2 , -1 ] Y:[ -8 , -7 ]
Found Entropy: 0
\forall X: [-2, -1] \ Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 340 \rangle X: [-2, -1] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 341 \rangle X: [-2, -1] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 342 \rangle X: [-2, -1] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 343 \rangle X: [-2, -1] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 344 \rangle X: [-2, -1] Y: [-2, -1]
Found Entropy: 0
<Window: 345 > X:[-2, -1] Y:[-1, 0]
Found Entropy: 0
<Window: 346 > X:[ -2 , -1 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 347 \rangle X:[-2,-1] Y:[1,2]
Found Entropy: 0
\langle \text{Window}: 348 \rangle X: [-2, -1] Y: [2, 3]
Found Entropy: 0
\langle Window: 349 \rangle X: [-2, -1] Y: [3, 4]
Found Entropy: 0
<Window: 350 > X:[ -2 , -1 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 351 > X:[ -1 , 0 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 352 > X:[-1, 0] Y:[-8, -7]
Found Entropy: 0
<Window: 353 > X:[ -1 , 0 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 354 > X:[ -1 , 0 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 355 > X:[ -1 , 0 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 356 > X:[ -1 , 0 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 357 \rangle X: [-1, 0] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 358 \rangle X: [-1, 0] Y: [-2, -1]
Found Entropy: 0
<Window: 359 > X:[ -1 , 0 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 360 > X:[ -1 , 0 ] Y:[ 0 , 1 ]
```

```
Found Entropy: 0
<Window: 361 > X:[ -1 , 0 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 362 > X:[-1, 0] Y:[2, 3]
Found Entropy: 0
<Window: 363 > X:[-1, 0] Y:[3, 4]
Found Entropy: 0
<Window: 364 > X:[ -1 , 0 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 365 > X:[0,1] Y:[-9,-8]
Found Entropy: 0
<Window: 366 > X:[ 0 , 1 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 367 > X:[ 0 , 1 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 368 > X:[ 0 , 1 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 369 > X:[ 0 , 1 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 370 > X:[ 0 , 1 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 371 > X:[0,1] Y:[-3,-2]
Found Entropy: 0
\{\text{Window: } 372 > X:[0,1] Y:[-2,-1]
Found Entropy: 0
\langle Window: 373 \rangle X: [0, 1] Y: [-1, 0]
Found Entropy: 0
<Window: 374 > X:[ 0 , 1 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 375 > X:[0, 1] Y:[1, 2]
Found Entropy: 0
<Window: 376 > X:[0, 1] Y:[2, 3]
Found Entropy: 0
<Window: 377 > X:[0,1] Y:[3,4]
Found Entropy: 0
<Window: 378 > X:[ 0 , 1 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 379 > X:[ 1 , 2 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 380 > X:[1,2] Y:[-8,-7]
Found Entropy: 0
\langle \text{Window}: 381 \rangle X: [1, 2] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 382 \rangle X: [1, 2] Y: [-6, -5]
Found Entropy: 0
<Window: 383 > X:[1,2] Y:[-5,-4]
Found Entropy: 0
<Window: 384 > X:[1, 2] Y:[-4, -3]
```

```
Found Entropy: 0
<Window: 385 > X:[ 1 , 2 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 386 > X:[ 1 , 2 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 387 > X:[ 1 , 2 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 388 > X:[ 1 , 2 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 389 > X:[ 1 , 2 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 390 > X:[1,2] Y:[2,3]
Found Entropy: 0
<Window: 391 > X:[ 1 , 2 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window}: 392 \rangle X: [1, 2] Y: [4, 5]
Found Entropy: 0
<Window: 393 > X:[ 2 , 3 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 394 \rangle X: [2, 3] Y: [-8, -7]
Found Entropy: 0
<Window: 395 > X:[ 2 , 3 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 396 > X:[ 2 , 3 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle Window: 397 \rangle X: [2, 3] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 398 \rangle X: [2, 3] Y: [-4, -3]
Found Entropy: 0
<Window: 399 > X:[ 2 , 3 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 400 > X:[ 2 , 3 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 401 > X:[2, 3] Y:[-1, 0]
Found Entropy: 0
<Window: 402 > X:[ 2 , 3 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 403 > X:[ 2 , 3 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 404 > X:[2,3] Y:[2,3]
Found Entropy: 0
<Window: 405 > X:[ 2 , 3 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 406 > X:[ 2 , 3 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 407 > X:[3,4] Y:[-9,-8]
Found Entropy: 0
<Window: 408 > X:[3,4] Y:[-8,-7]
```

```
Found Entropy: 0
<Window: 409 > X:[3, 4] Y:[-7, -6]
Found Entropy: 0
<Window: 410 > X:[3, 4] Y:[-6, -5]
Found Entropy: 0
<Window: 411 > X:[ 3 , 4 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 412 > X:[ 3 , 4 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 413 \rangle X: [3, 4] Y: [-3, -2]
Found Entropy: 0
\langle Window: 414 \rangle X: [3, 4] Y: [-2, -1]
Found Entropy: 0
<Window: 415 > X:[ 3 , 4 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 416 > X:[ 3 , 4 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 417 > X:[3, 4] Y:[1, 2]
Found Entropy: 0
<Window: 418 > X:[ 3 , 4 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 419 > X:[ 3 , 4 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 420 > X:[ 3 , 4 ] Y:[ 4 , 5 ]
Found Entropy: 0
\{\text{Window}: 421 > X: [4, 5] Y: [-9, -8]
Found Entropy: 0
\{\text{Window: } 422 > X: [4, 5] Y: [-8, -7]
Found Entropy: 0
<Window: 423 > X:[ 4 , 5 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 424 > X:[ 4 , 5 ] Y:[ -6 , -5 ]
Found Entropy: 0
\{\text{Window: } 425 > X: [4, 5] Y: [-5, -4]
Found Entropy: 0
<Window: 426 > X:[ 4 , 5 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 427 > X:[ 4 , 5 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window}: 428 \rangle X: [4, 5] Y: [-2, -1]
Found Entropy: 0
\langle Window: 429 \rangle X: [4, 5] Y: [-1, 0]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 430 > X:[ 4 , 5 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 431 > X:[4,5] Y:[1,2]
Found Entropy: 0
```

```
<Window: 432 > X:[ 4 , 5 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 433 > X:[4,5] Y:[3,4]
Found Entropy: 0
<Window: 434 > X:[ 4 , 5 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 435 > X:[5,6] Y:[-9,-8]
Found Entropy: 0
<Window: 436 > X:[5,6] Y:[-8,-7]
Found Entropy: 0
<Window: 437 > X:[5,6] Y:[-7,-6]
Found Entropy: 0
<Window: 438 > X:[5,6] Y:[-6,-5]
Found Entropy: 0
<Window: 439 > X:[5,6] Y:[-5,-4]
Found Entropy: 0
<Window: 440 > X:[5,6] Y:[-4,-3]
Found Entropy: 0
<Window: 441 > X:[5, 6] Y:[-3, -2]
Found Entropy: 0
<Window: 442 > X:[5, 6] Y:[-2, -1]
Found Entropy: 0
<Window: 443 > X:[5,6] Y:[-1,0]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 444 > X:[5,6] Y:[0,1]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 445 > X:[ 5 , 6 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 446 > X:[ 5 , 6 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 447 > X:[ 5 , 6 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 448 > X:[ 5 , 6 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 449 > X:[ 6 , 7 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 450 > X:[6, 7] Y:[-8, -7]
Found Entropy: 0
<Window: 451 > X:[ 6 , 7 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 452 > X:[ 6 , 7 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 453 > X:[ 6 , 7 ] Y:[ -5 , -4 ]
```

```
Found Entropy: 0
<Window: 454 > X:[6, 7] Y:[-4, -3]
Found Entropy: 0
<Window: 455 > X:[6, 7] Y:[-3, -2]
Found Entropy: 0
<Window: 456 > X:[6, 7] Y:[-2, -1]
Found Entropy: 0
<Window: 457 > X:[6,7] Y:[-1,0]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 458 > X:[6,7] Y:[0,1]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 459 > X:[6,7] Y:[1,2]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 460 > X:[6,7] Y:[2,3]
Found Entropy: 0
<Window: 461 > X:[ 6 , 7 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 462 > X:[ 6 , 7 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 463 > X:[ 7 , 8 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 464 > X:[ 7 , 8 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 465 > X:[7,8] Y:[-7,-6]
Found Entropy: 0
<Window: 466 > X:[ 7 , 8 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 467 > X:[7,8] Y:[-5,-4]
Found Entropy: 0
\langle \text{Window}: 468 \rangle X: [7, 8] Y: [-4, -3]
Found Entropy: 0
<Window: 469 > X:[7,8] Y:[-3,-2]
Found Entropy: 0
<Window: 470 > X:[7,8] Y:[-2,-1]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 471 > X:[ 7 , 8 ] Y:[ -1 , 0 ]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 472 > X:[ 7 , 8 ] Y:[ 0 , 1 ]
```

```
Found a sample of class: 1
Found Entropy: 0.0
<Window: 473 > X:[ 7 , 8 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 474 > X:[7,8] Y:[2,3]
Found Entropy: 0
<Window: 475 > X:[ 7 , 8 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 476 > X:[ 7 , 8 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 477 > X:[8,9] Y:[-9,-8]
Found Entropy: 0
<Window: 478 > X:[8,9] Y:[-8,-7]
Found Entropy: 0
<Window: 479 > X:[8,9] Y:[-7,-6]
Found Entropy: 0
<Window: 480 > X:[8, 9] Y:[-6, -5]
Found Entropy: 0
<Window: 481 > X:[8,9] Y:[-5,-4]
Found Entropy: 0
\{\text{Window: } 482 > X:[8,9] Y:[-4,-3]
Found Entropy: 0
\langle Window: 483 \rangle X: [8, 9] Y: [-3, -2]
Found Entropy: 0
<Window: 484 > X:[8,9] Y:[-2,-1]
Found Entropy: 0
<Window: 485 > X:[8, 9] Y:[-1, 0]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 486 > X:[ 8 , 9 ] Y:[ 0 , 1 ]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
\langle Window: 487 \rangle X:[8,9] Y:[1,2]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 488 > X:[8, 9] Y:[2, 3]
Found Entropy: 0
<Window: 489 > X:[8, 9] Y:[3, 4]
Found Entropy: 0
<Window: 490 > X:[8, 9] Y:[4, 5]
Found Entropy: 0
<Window: 491 > X:[9, 10] Y:[-9, -8]
```

```
Found Entropy: 0
<Window: 492 > X:[9, 10] Y:[-8, -7]
Found Entropy: 0
\{Window: 493 > X:[ 9 , 10 ] Y:[ -7 , -6 ]
Found Entropy: 0
\forall 1000 : 494 > X:[9, 10] Y:[-6, -5]
Found Entropy: 0
<Window: 495 > X:[ 9 , 10 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 496 > X:[ 9 , 10 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 497 > X:[ 9 , 10 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 498 > X:[ 9 , 10 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 499 > X:[ 9 , 10 ] Y:[ -1 , 0 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 500 > X:[ 9 , 10 ] Y:[ 0 , 1 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 501 > X:[ 9 , 10 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 502 > X:[ 9 , 10 ] Y:[ 2 , 3 ]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 503 > X:[ 9 , 10 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 504 > X:[ 9 , 10 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 505 > X:[ 10 , 11 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 506 > X:[ 10 , 11 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 507 > X:[ 10 , 11 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 508 > X:[ 10 , 11 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 509 > X:[ 10 , 11 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 510 > X:[ 10 , 11 ] Y:[ -4 , -3 ]
Found Entropy: 0
\forall X:[10, 11] Y:[-3, -2]
Found Entropy: 0
\forall X:[10, 11] Y:[-2, -1]
Found Entropy: 0
<Window: 513 > X:[ 10 , 11 ] Y:[ -1 , 0 ]
```

```
Found Entropy: 0
<Window: 514 > X:[ 10 , 11 ] Y:[ 0 , 1 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 515 > X:[ 10 , 11 ] Y:[ 1 , 2 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 516 > X:[ 10 , 11 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 517 > X:[ 10 , 11 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 518 > X:[ 10 , 11 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 519 > X:[ 11 , 12 ] Y:[ -9 , -8 ]
Found Entropy: 0
\forall X: [11, 12] Y: [-8, -7]
Found Entropy: 0
<Window: 521 > X:[ 11 , 12 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 522 > X:[ 11 , 12 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 523 > X:[ 11 , 12 ] Y:[ -5 , -4 ]
Found Entropy: 0
\forall Window: 524 > X:[ 11 , 12 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: 525} \rangle X: [11, 12] Y: [-3, -2]
Found Entropy: 0
<Window: 526 > X:[ 11 , 12 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 527 > X:[ 11 , 12 ] Y:[ -1 , 0 ]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 528 > X:[ 11 , 12 ] Y:[ 0 , 1 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 529 > X:[ 11 , 12 ] Y:[ 1 , 2 ]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 530 > X:[ 11 , 12 ] Y:[ 2 , 3 ]
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 531 > X:[ 11 , 12 ] Y:[ 3 , 4 ]
```

```
Found a sample of class: 2
Found Entropy: 0.0
<Window: 532 > X:[ 11 , 12 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: 533} \rangle X: [12, 13] Y: [-9, -8]
Found Entropy: 0
<Window: 534 > X:[ 12 , 13 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window}: 535 \rangle X: [12, 13] Y: [-7, -6]
Found Entropy: 0
<Window: 536 > X:[ 12 , 13 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 537 \rangle \text{ X:[ } 12 \text{ , } 13 \text{ ] } \text{ Y:[ } -5 \text{ , } -4 \text{ ]}
Found Entropy: 0
\langle \text{Window: 538} \rangle \text{ X:[ 12 , 13 ] Y:[ -4 , -3 ]}
Found Entropy: 0
\langle \text{Window: 539} \rangle X: [12, 13] Y: [-3, -2]
Found Entropy: 0
\{\text{Window: 540} > \text{X:[12,13]} \text{Y:[-2,-1]}
Found Entropy: 0
<Window: 541 > X:[ 12 , 13 ] Y:[ -1 , 0 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 542 > X:[ 12 , 13 ] Y:[ 0 , 1 ]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 543 > X:[ 12 , 13 ] Y:[ 1 , 2 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 544 > X:[ 12 , 13 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 545 > X:[ 12 , 13 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.5623351446188083
<Window: 546 > X:[ 12 , 13 ] Y:[ 4 , 5 ]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 547 > X:[13, 14] Y:[-9, -8]
Found Entropy: 0
```

```
\langle \text{Window: 548} \rangle \text{ X:[ 13 , 14 ] Y:[ -8 , -7 ]}
Found Entropy: 0
\langle \text{Window}: 549 \rangle X: [13, 14] Y: [-7, -6]
Found Entropy: 0
<Window: 550 > X:[ 13 , 14 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 551 > X:[ 13 , 14 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 552 \rangle X: [13, 14] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 553 \rangle X: [13, 14] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 554 \rangle X: [13, 14] Y: [-2, -1]
Found Entropy: 0
<Window: 555 > X:[ 13 , 14 ] Y:[ -1 , 0 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 556 > X:[ 13 , 14 ] Y:[ 0 , 1 ]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 557 > X:[ 13 , 14 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 558 > X:[ 13 , 14 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 559 > X:[ 13 , 14 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 560 > X:[ 13 , 14 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 561 > X:[ 14 , 15 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 562 > X:[ 14 , 15 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 563 > X:[ 14 , 15 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 564 > X:[ 14 , 15 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 565 > X:[14, 15] Y:[-5, -4]
Found Entropy: 0
<Window: 566 > X:[ 14 , 15 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 567 > X:[ 14 , 15 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 568 > X:[ 14 , 15 ] Y:[ -2 , -1 ]
Found Entropy: 0
```

```
<Window: 569 > X:[ 14 , 15 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 570 > X:[ 14 , 15 ] Y:[ 0 , 1 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 571 > X:[ 14 , 15 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 572 > X:[ 14 , 15 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 573 > X:[ 14 , 15 ] Y:[ 3 , 4 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 574 > X:[ 14 , 15 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: 575} \rangle X: [15, 16] Y: [-9, -8]
Found Entropy: 0
<Window: 576 > X:[ 15 , 16 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 577 > X:[ 15 , 16 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 578 > X:[ 15 , 16 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 579 > X:[ 15 , 16 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window: 580} \rangle \text{ X:} [15, 16] \text{ Y:} [-4, -3]
Found Entropy: 0
\langle \text{Window: 581} \rangle \text{ X:[ 15 , 16 ] Y:[ -3 , -2 ]}
Found Entropy: 0
<Window: 582 > X:[ 15 , 16 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 583 > X:[ 15 , 16 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 584 > X:[ 15 , 16 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 585 > X:[ 15 , 16 ] Y:[ 1 , 2 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 586 > X:[ 15 , 16 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 587 > X:[ 15 , 16 ] Y:[ 3 , 4 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 588 > X:[ 15 , 16 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 589 > X:[ 16 , 17 ] Y:[ -9 , -8 ]
```

```
Found Entropy: 0
<Window: 590 > X:[ 16 , 17 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 591 > X:[ 16 , 17 ] Y:[ -7 , -6 ]
Found Entropy: 0
\forall X: [16, 17] Y: [-6, -5]
Found Entropy: 0
<Window: 593 > X:[ 16 , 17 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 594 > X:[ 16 , 17 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: 595} \rangle X: [16, 17] Y: [-3, -2]
Found Entropy: 0
<Window: 596 > X:[ 16 , 17 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 597 > X:[ 16 , 17 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 598 > X:[ 16 , 17 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 599 > X:[ 16 , 17 ] Y:[ 1 , 2 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 600 > X:[ 16 , 17 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 601 > X:[ 16 , 17 ] Y:[ 3 , 4 ]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 602 > X:[ 16 , 17 ] Y:[ 4 , 5 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 603 > X:[ 17 , 18 ] Y:[ -9 , -8 ]
Found Entropy: 0
\{\text{Window: }604 > X:[17,18] Y:[-8,-7]
Found Entropy: 0
<Window: 605 > X:[ 17 , 18 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 606 > X:[ 17 , 18 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 607 > X:[ 17 , 18 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 608 > X:[ 17 , 18 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 609 > X:[ 17 , 18 ] Y:[ -3 , -2 ]
Found Entropy: 0
```

```
\langle \text{Window: 610} \rangle X: [17, 18] Y: [-2, -1]
Found Entropy: 0
<Window: 611 > X:[ 17 , 18 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 612 > X:[ 17 , 18 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 613 > X:[ 17 , 18 ] Y:[ 1 , 2 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 614 > X:[ 17 , 18 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 615 > X:[ 17 , 18 ] Y:[ 3 , 4 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 616 > X:[ 17 , 18 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 617 > X:[ 18 , 19 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 618 > X:[ 18 , 19 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window}: 619 \rangle X: [18, 19] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window: } 620 \rangle \text{ X:} [ 18 , 19 ] \text{ Y:} [ -6 , -5 ]
Found Entropy: 0
<Window: 621 > X:[ 18 , 19 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window: } 622 \rangle \text{ X:} [ 18 , 19 ] \text{ Y:} [ -4 , -3 ]
Found Entropy: 0
<Window: 623 > X:[ 18 , 19 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window: } 624 \rangle \text{ X:} [ 18 , 19 ] \text{ Y:} [ -2 , -1 ]
Found Entropy: 0
<Window: 625 > X:[ 18 , 19 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 626 > X:[ 18 , 19 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 627 > X:[ 18 , 19 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 628 > X:[ 18 , 19 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 629 > X:[ 18 , 19 ] Y:[ 3 , 4 ]
```

```
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 630 > X:[ 18 , 19 ] Y:[ 4 , 5 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 631 > X:[ 19 , 20 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window: } 632 \rangle \text{ X:} [ 19 , 20 ] \text{ Y:} [ -8 , -7 ]
Found Entropy: 0
<Window: 633 > X:[ 19 , 20 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 634 > X:[ 19 , 20 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 635 > X:[ 19 , 20 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 636 > X:[ 19 , 20 ] Y:[ -4 , -3 ]
Found Entropy: 0
\{Window: 637 > X:[19, 20] Y:[-3, -2]
Found Entropy: 0
\langle \text{Window: } 638 \rangle \ \text{X:} [ 19 , 20 ] \ \text{Y:} [ -2 , -1 ]
Found Entropy: 0
<Window: 639 > X:[ 19 , 20 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 640 > X:[ 19 , 20 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 641 > X:[ 19 , 20 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 642 > X:[ 19 , 20 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 643 > X:[ 19 , 20 ] Y:[ 3 , 4 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 644 > X:[ 19 , 20 ] Y:[ 4 , 5 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 645 > X:[ 20 , 21 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 646 > X:[ 20 , 21 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 647 > X:[ 20 , 21 ] Y:[ -7 , -6 ]
Found Entropy: 0
```

```
<Window: 648 > X:[ 20 , 21 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: 649} \rangle X: [20, 21] Y: [-5, -4]
Found Entropy: 0
\{Window: 650 > X: [20, 21] Y: [-4, -3] <math>\}
Found Entropy: 0
\langle \text{Window}: 651 \rangle X: [20, 21] Y: [-3, -2]
Found Entropy: 0
\{\text{Window: }652 > X:[20,21] Y:[-2,-1]
Found Entropy: 0
<Window: 653 > X:[ 20 , 21 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 654 > X:[ 20 , 21 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 655 > X:[ 20 , 21 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 656 > X:[ 20 , 21 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 657 > X:[ 20 , 21 ] Y:[ 3 , 4 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 658 > X:[ 20 , 21 ] Y:[ 4 , 5 ]
Found a sample of class: 2
Found Entropy: 0.0
Total Count: 658
Expected Count: 658
OKAY: True
----Done--- 1.2554823251787535
Done!
-26 21 -9 5
You Can use this matrix now.
X_{min} = -26
X_max= 21
Y min= -9
Y_max= 5
And the Matrix Shape: 47 * 14
\langle \text{Window: 1} \rangle X: [-26, -25] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 2 \rangle X: [-26, -25] Y: [-8, -7]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\{\text{Window: 3 > X: [-26, -25] Y: [-7, -6]}
Found a sample of class: 0
```

```
Found Entropy: 0.0
\{\text{Window: 4 > X:[-26,-25] Y:[-6,-5]}
Found Entropy: 0
<Window: 5 > X:[ -26 , -25 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 6 > X:[ -26 , -25 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: 7 > X:[-26,-25] Y:[-3,-2]}
Found Entropy: 0
\langle \text{Window: 8 > X:[-26,-25] Y:[-2,-1]}
Found Entropy: 0
\langle \text{Window: 9 > X:[-26,-25] Y:[-1,0]}
Found Entropy: 0
\langle \text{Window}: 10 \rangle X: [-26, -25] Y: [0, 1]
Found Entropy: 0
\langle \text{Window}: 11 \rangle X: [-26, -25] Y: [1, 2]
Found Entropy: 0
\langle \text{Window}: 12 \rangle X: [-26, -25] Y: [2, 3]
Found Entropy: 0
<Window: 13 > X:[ -26 , -25 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 14 > X:[ -26 , -25 ] Y:[ 4 , 5 ]
Found Entropy: 0
\{Window: 15 > X: [ -25 , -24 ] Y: [ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 16 \rangle X: [-25, -24] Y: [-8, -7]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\forall 17 > X:[-25, -24] Y:[-7, -6]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window: } 18 \rangle \ \text{X:} [ -25 , -24 ] \ \text{Y:} [ -6 , -5 ]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 19 \rangle X: [-25, -24] Y: [-5, -4]
Found Entropy: 0
\forall x = 0 > x : [-25, -24] Y : [-4, -3]
Found Entropy: 0
\langle \text{Window}: 21 \rangle X: [-25, -24] Y: [-3, -2]
Found Entropy: 0
\forall X: [-25, -24] \ Y: [-2, -1]
Found Entropy: 0
<Window: 23 > X:[ -25 , -24 ] Y:[ -1 , 0 ]
Found Entropy: 0
```

```
<Window: 24 > X:[ -25 , -24 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 25 \rangle X: [-25, -24] Y: [1, 2]
Found Entropy: 0
\{\text{Window: 26} > \text{X:[-25, -24]} \text{ Y:[2, 3]}
Found Entropy: 0
<Window: 27 > X:[ -25 , -24 ] Y:[ 3 , 4 ]
Found Entropy: 0
\{\text{Window: 28} > \text{X:[-25,-24]} \text{Y:[4,5]}
Found Entropy: 0
\{Window: 29 > X: [-24, -23] Y: [-9, -8]
Found Entropy: 0
\{\text{Window: } 30 > X:[-24, -23] Y:[-8, -7]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 31 \rangle X: [-24, -23] Y: [-7, -6]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.5623351446188083
<Window: 32 > X:[ -24 , -23 ] Y:[ -6 , -5 ]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 33 \rangle X: [-24, -23] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 34 \rangle X: [-24, -23] Y: [-4, -3]
Found Entropy: 0
\forall Window: 35 > X:[ -24 , -23 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window}: 36 \rangle X: [-24, -23] Y: [-2, -1]
Found Entropy: 0
<Window: 37 > X:[-24, -23] Y:[-1, 0]
Found Entropy: 0
\langle \text{Window: } 38 \rangle \ \text{X:[} -24 \ , -23 \ ] \ \text{Y:[} 0 \ , 1 \ ]
Found Entropy: 0
\langle \text{Window: } 39 \rangle \text{ X:} [ -24 , -23 ] \text{ Y:} [ 1 , 2 ]
Found Entropy: 0
<Window: 40 > X:[ -24 , -23 ] Y:[ 2 , 3 ]
Found Entropy: 0
\langle \text{Window}: 41 > X: [-24, -23] Y: [3, 4]
Found Entropy: 0
\{\text{Window: } 42 > X:[-24, -23] Y:[4, 5]
Found Entropy: 0
\langle \text{Window}: 43 \rangle X: [-23, -22] Y: [-9, -8]
Found Entropy: 0
\{\text{Window: } 44 > \text{X:} [-23, -22] \text{ Y:} [-8, -7] \}
```

```
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 45 \rangle X: [-23, -22] Y: [-7, -6]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.5623351446188083
<Window: 46 > X:[ -23 , -22 ] Y:[ -6 , -5 ]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
<Window: 47 > X:[-23, -22] Y:[-5, -4]
Found Entropy: 0
\langle \text{Window}: 48 \rangle X: [-23, -22] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 49 \rangle X: [-23, -22] Y: [-3, -2]
Found Entropy: 0
\forall \text{Window: } 50 > X:[-23, -22] Y:[-2, -1]
Found Entropy: 0
<Window: 51 > X:[ -23 , -22 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 52 > X:[ -23 , -22 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 53 > X:[ -23 , -22 ] Y:[ 1 , 2 ]
Found Entropy: 0
\{\text{Window: } 54 > X: [-23, -22] Y: [2, 3]
Found Entropy: 0
<Window: 55 > X:[ -23 , -22 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 56 > X:[ -23 , -22 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 57 \rangle X: [-22, -21] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 58 \rangle X: [-22, -21] Y: [-8, -7]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 59 \rangle X: [-22, -21] Y: [-7, -6]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\{\text{Window: }60 > \text{X:}[-22, -21] \text{ Y:}[-6, -5]
Found Entropy: 0
\forall \text{Window: } 61 > X:[-22, -21] Y:[-5, -4]
Found Entropy: 0
\forall \text{Window: } 62 > X:[-22, -21] Y:[-4, -3]
Found Entropy: 0
```

```
\langle \text{Window: } 63 \rangle \text{ X: [} -22 , -21 ] \text{ Y: [} -3 , -2 ]
Found Entropy: 0
\{\text{Window: } 64 > \text{X:} [-22, -21] \text{ Y:} [-2, -1] \}
Found Entropy: 0
<Window: 65 > X:[ -22 , -21 ] Y:[ -1 , 0 ]
Found Entropy: 0
\{\text{Window: } 66 > X: [-22, -21] \ Y: [0, 1]
Found Entropy: 0
<Window: 67 > X:[-22, -21] Y:[1, 2]
Found Entropy: 0
<Window: 68 > X:[ -22 , -21 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 69 > X:[ -22 , -21 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window: 70} \rangle X: [-22, -21] Y: [4, 5]
Found Entropy: 0
\{\text{Window: 71} > X: [-21, -20] Y: [-9, -8]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 72 \rangle X: [-21, -20] Y: [-8, -7]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.6365141682948128
\langle \text{Window}: 73 \rangle X: [-21, -20] Y: [-7, -6]
Found a sample of class: 0
Found Entropy: 0.0
\{\text{Window: } 74 > \text{X:} [-21, -20] \text{ Y:} [-6, -5] \}
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 0.6931471805599453
\{Window: 75 > X: [ -21 , -20 ] Y: [ -5 , -4 ]
Found Entropy: 0
\{Window: 76 > X: [ -21 , -20 ] Y: [ -4 , -3 ]
Found Entropy: 0
\forall X: [-21, -20] Y: [-3, -2]
Found Entropy: 0
\{Window: 78 > X:[ -21 , -20 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 79 > X:[ -21 , -20 ] Y:[ -1 , 0 ]
Found Entropy: 0
\forall x \in \mathbb{R}  < window: 80 > X: [ -21 , -20 ] Y: [ 0 , 1 ]
Found Entropy: 0
```

```
<Window: 81 > X:[ -21 , -20 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 82 > X:[ -21 , -20 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 83 > X:[ -21 , -20 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 84 > X:[ -21 , -20 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 85 \rangle \text{ X: [ } -20 \text{ , } -19 \text{ ] } \text{ Y: [ } -9 \text{ , } -8 \text{ ]}
Found Entropy: 0
\{\text{Window: 86} > \text{X:} [-20, -19] \text{ Y:} [-8, -7] \}
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 87 \rangle X: [-20, -19] Y: [-7, -6]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.5623351446188083
\{Window: 88 \} X: [ -20 , -19 ] Y: [ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: 89} \rangle \text{ X: [ -20 , -19 ] Y: [ -5 , -4 ]}
Found Entropy: 0
\{Window: 90 > X:[ -20 , -19 ] Y:[ -4 , -3 ]
Found Entropy: 0
\{\text{Window: } 91 > X:[-20, -19] Y:[-3, -2]
Found Entropy: 0
\langle \text{Window: } 92 \rangle \text{ X: [ } -20 \text{ , } -19 \text{ ] } \text{ Y: [ } -2 \text{ , } -1 \text{ ]}
Found Entropy: 0
\langle \text{Window: 93} \rangle \text{ X: [ -20 , -19 ] Y: [ -1 , 0 ]}
Found Entropy: 0
<Window: 94 > X:[ -20 , -19 ] Y:[ 0 , 1 ]
Found Entropy: 0
\{\text{Window: 95} > \text{X:[-20,-19]} \text{Y:[1,2]}
Found Entropy: 0
\langle \text{Window: 96} \rangle \text{ X:[-20,-19] Y:[2,3]}
Found Entropy: 0
<Window: 97 > X:[ -20 , -19 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window: 98} \rangle \text{ X:[-20,-19] Y:[4,5]}
Found Entropy: 0
\langle \text{Window: 99} \rangle \text{ X:} [-19, -18] \text{ Y:} [-9, -8]
Found Entropy: 0
\langle \text{Window}: 100 \rangle X: [-19, -18] Y: [-8, -7]
Found a sample of class: 0
Found Entropy: 0.0
\langle Window: 101 \rangle X:[-19, -18] Y:[-7, -6]
Found Entropy: 0
```

```
\langle \text{Window: } 102 \rangle \text{ X:[} -19 , -18 ] \text{ Y:[} -6 , -5 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 103 > X:[ -19 , -18 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 104 > X:[ -19 , -18 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 105 \rangle \text{ X:[} -19 \text{ , } -18 \text{] } \text{ Y:[} -3 \text{ , } -2 \text{]}
Found Entropy: 0
\langle \text{Window}: 106 \rangle X: [-19, -18] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window: } 107 \rangle X:[-19, -18] Y:[-1, 0]
Found Entropy: 0
<Window: 108 > X:[ -19 , -18 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window: } 109 \rangle \ \text{X:[} -19 \ , -18 \ ] \ \text{Y:[} 1 \ , 2 \ ]
Found Entropy: 0
\langle \text{Window: } 110 \rangle \ \text{X:[} -19 \ , -18 \ ] \ \text{Y:[} 2 \ , 3 \ ]
Found Entropy: 0
<Window: 111 > X:[ -19 , -18 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 112 > X:[ -19 , -18 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 113 > X:[ -18 , -17 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 114 \rangle X: [-18, -17] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 115 \rangle X: [-18, -17] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 116 \rangle X: [-18, -17] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 117 \rangle X: [-18, -17] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 118 \rangle X: [-18, -17] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window: } 119 \rangle \ \text{X:[} -18 \ , -17 \ ] \ \text{Y:[} -3 \ , -2 \ ]
Found Entropy: 0
\langle \text{Window: } 120 \rangle \text{ X:[} -18 , -17 ] \text{ Y:[} -2 , -1 ]
Found Entropy: 0
\langle \text{Window: } 121 \rangle \ \text{X:[} -18 \ , -17 \ ] \ \text{Y:[} -1 \ , 0 \ ]
Found Entropy: 0
<Window: 122 > X:[ -18 , -17 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 123 > X:[ -18 , -17 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window: } 124 \rangle \ \text{X:[} -18 \ , -17 \ ] \ \text{Y:[} 2 \ , 3 \ ]
Found Entropy: 0
\langle \text{Window: } 125 \rangle X: [ -18 , -17 ] Y: [ 3 , 4 ]
```

```
Found Entropy: 0
<Window: 126 > X:[ -18 , -17 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 127 > X:[ -17 , -16 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 128 > X:[ -17 , -16 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window}: 129 \rangle X: [-17, -16] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 130 \rangle X: [-17, -16] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 131 \rangle X: [-17, -16] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 132 \rangle X: [-17, -16] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window: } 133 \rangle \ \text{X:[} -17 \ , -16 \ ] \ \text{Y:[} -3 \ , -2 \ ]
Found Entropy: 0
\forall \text{Window: } 134 > X:[-17, -16] Y:[-2, -1]
Found Entropy: 0
\langle \text{Window}: 135 \rangle X: [-17, -16] Y: [-1, 0]
Found Entropy: 0
<Window: 136 > X:[ -17 , -16 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 137 > X:[ -17 , -16 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window}: 138 \rangle X: [-17, -16] Y: [2, 3]
Found Entropy: 0
<Window: 139 > X:[ -17 , -16 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 140 > X:[ -17 , -16 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 141 \rangle \ \text{X:[} -16 \ , -15 \ ] \ \text{Y:[} -9 \ , -8 \ ]
Found Entropy: 0
<Window: 142 > X:[ -16 , -15 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window: } 143 \rangle \ \text{X:[} -16 \ , -15 \ ] \ \text{Y:[} -7 \ , -6 \ ]
Found Entropy: 0
\langle \text{Window: } 144 \rangle \ \text{X:[} -16 \ , -15 \ ] \ \text{Y:[} -6 \ , -5 \ ]
Found Entropy: 0
\langle \text{Window}: 145 \rangle X: [-16, -15] Y: [-5, -4]
Found Entropy: 0
<Window: 146 > X:[ -16 , -15 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 147 > X:[ -16 , -15 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window: } 148 \rangle \ \text{X:[} -16 \ , -15 \ ] \ \text{Y:[} -2 \ , -1 \ ]
Found Entropy: 0
\langle \text{Window: } 149 \rangle \ \text{X:[} -16 \ , -15 \ ] \ \text{Y:[} -1 \ , 0 \ ]
```

```
Found Entropy: 0
<Window: 150 > X:[ -16 , -15 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window: } 151 \rangle \ \text{X:[} -16 \ , -15 \ ] \ \text{Y:[} 1 \ , 2 \ ]
Found Entropy: 0
\langle \text{Window: } 152 \rangle \ \text{X:[} -16 \ , -15 \ ] \ \text{Y:[} 2 \ , 3 \ ]
Found Entropy: 0
<Window: 153 > X:[ -16 , -15 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 154 > X:[ -16 , -15 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 155 \rangle X: [-15, -14] Y: [-9, -8]
Found Entropy: 0
<Window: 156 > X:[ -15 , -14 ] Y:[ -8 , -7 ]
Found Entropy: 0
\forall Window: 157 > X:[ -15 , -14 ] Y:[ -7 , -6 ]
Found Entropy: 0
\langle \text{Window}: 158 \rangle X: [-15, -14] Y: [-6, -5]
Found Entropy: 0
<Window: 159 > X:[ -15 , -14 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 160 \rangle X: [-15, -14] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 161 \rangle X: [-15, -14] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 162 \rangle X: [-15, -14] Y: [-2, -1]
Found Entropy: 0
<Window: 163 > X:[ -15 , -14 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 164 > X:[ -15 , -14 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 165 > X:[ -15 , -14 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 166 > X:[ -15 , -14 ] Y:[ 2 , 3 ]
Found Entropy: 0
\langle \text{Window: } 167 \rangle \text{ X:[} -15 , -14 ] \text{ Y:[} 3 , 4 ]
Found Entropy: 0
<Window: 168 > X:[ -15 , -14 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 169 \rangle \ \text{X:[} -14 , -13 \ ] \ \text{Y:[} -9 , -8 \ ]
Found Entropy: 0
<Window: 170 > X:[ -14 , -13 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 171 > X:[ -14 , -13 ] Y:[ -7 , -6 ]
Found Entropy: 0
\forall \text{Window: } 172 > X:[-14, -13] Y:[-6, -5]
Found Entropy: 0
\forall 173 > X:[-14, -13] Y:[-5, -4]
```

```
Found Entropy: 0
\forall 174 > X:[-14, -13] Y:[-4, -3]
Found Entropy: 0
<Window: 175 > X:[ -14 , -13 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 176 > X:[ -14 , -13 ] Y:[ -2 , -1 ]
Found Entropy: 0
\langle \text{Window: } 177 \rangle X:[-14, -13] Y:[-1, 0]
Found Entropy: 0
\langle \text{Window}: 178 \rangle X: [-14, -13] Y: [0, 1]
Found Entropy: 0
<Window: 179 > X:[ -14 , -13 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 180 > X:[ -14 , -13 ] Y:[ 2 , 3 ]
Found Entropy: 0
\langle \text{Window: } 181 \rangle \ \text{X:[} -14 \ , -13 \ ] \ \text{Y:[} 3 \ , 4 \ ]
Found Entropy: 0
\langle \text{Window: } 182 \rangle \ \text{X:[} -14 \ , -13 \ ] \ \text{Y:[} 4 \ , 5 \ ]
Found Entropy: 0
\langle \text{Window}: 183 \rangle X: [-13, -12] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window: } 184 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} -8 \ , -7 \ ]
Found Entropy: 0
<Window: 185 > X:[ -13 , -12 ] Y:[ -7 , -6 ]
Found Entropy: 0
\langle \text{Window}: 186 \rangle X: [-13, -12] Y: [-6, -5]
Found Entropy: 0
\forall Window: 187 > X:[ -13 , -12 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 188 > X:[ -13 , -12 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 189 \rangle \ \text{X:[} -13 , -12 \ ] \ \text{Y:[} -3 , -2 \ ]
Found Entropy: 0
\{Window: 190 > X:[ -13 , -12 ] Y:[ -2 , -1 ]
Found Entropy: 0
\langle \text{Window: 191} \rangle X: [-13, -12] Y: [-1, 0]
Found Entropy: 0
\langle \text{Window: } 192 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} 0 \ , 1 \ ]
Found Entropy: 0
\langle \text{Window: 193} \rangle X: [-13, -12] Y: [1, 2]
Found Entropy: 0
<Window: 194 > X:[ -13 , -12 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 195 > X:[ -13 , -12 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window: } 196 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} 4 \ , 5 \ ]
Found Entropy: 0
\forall \text{Window: } 197 > X:[-12, -11] Y:[-9, -8]
```

```
Found Entropy: 0
<Window: 198 > X:[ -12 , -11 ] Y:[ -8 , -7 ]
Found Entropy: 0
\{Window: 199 \} X:[ -12 , -11 ] Y:[ -7 , -6 ]
Found Entropy: 0
\forall X: [-12, -11] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 201 \rangle X: [-12, -11] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 202 \rangle X: [-12, -11] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 203 \rangle X: [-12, -11] Y: [-3, -2]
Found Entropy: 0
\forall \text{Window: } 204 > X:[-12, -11] Y:[-2, -1]
Found Entropy: 0
<Window: 205 > X:[-12, -11] Y:[-1, 0]
Found Entropy: 0
\langle \text{Window}: 206 \rangle X: [-12, -11] Y: [0, 1]
Found Entropy: 0
<Window: 207 > X:[ -12 , -11 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window: } 208 \rangle \ \text{X:[} -12 \ , -11 \ ] \ \text{Y:[} 2 \ , 3 \ ]
Found Entropy: 0
<Window: 209 > X:[ -12 , -11 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window}: 210 \rangle X: [-12, -11] Y: [4, 5]
Found Entropy: 0
\langle Window: 211 \rangle X:[-11, -10] Y:[-9, -8]
Found Entropy: 0
\langle \text{Window}: 212 \rangle X: [-11, -10] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 213 \rangle X: [-11, -10] Y: [-7, -6]
Found Entropy: 0
\{Window: 214 > X:[-11, -10] Y:[-6, -5]
Found Entropy: 0
\langle \text{Window}: 215 \rangle X: [-11, -10] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 216 \rangle X: [-11, -10] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 217 \rangle X: [-11, -10] Y: [-3, -2]
Found Entropy: 0
<Window: 218 > X:[ -11 , -10 ] Y:[ -2 , -1 ]
Found Entropy: 0
\langle \text{Window: } 219 \rangle X:[-11, -10] Y:[-1, 0]
Found Entropy: 0
\langle \text{Window: } 220 \rangle X:[-11, -10] Y:[0, 1]
Found Entropy: 0
\langle \text{Window: } 221 \rangle X:[-11, -10] Y:[1, 2]
```

```
Found Entropy: 0
<Window: 222 > X:[ -11 , -10 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 223 > X:[ -11 , -10 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 224 > X:[-11, -10] Y:[4, 5]
Found Entropy: 0
\langle \text{Window: } 225 \rangle \text{ X:[} -10 , -9 ] \text{ Y:[} -9 , -8 ]
Found Entropy: 0
<Window: 226 > X:[ -10 , -9 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window: } 227 \rangle \text{ X:[} -10 , -9 ] \text{ Y:[} -7 , -6 ]
Found Entropy: 0
<Window: 228 > X:[ -10 , -9 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 229 \rangle X:[-10, -9] Y:[-5, -4]
Found Entropy: 0
\langle \text{Window: } 230 \rangle \text{ X:[} -10 , -9 ] \text{ Y:[} -4 , -3 ]
Found Entropy: 0
<Window: 231 > X:[ -10 , -9 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window}: 232 \rangle X: [-10, -9] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 233 \rangle X: [-10, -9] Y: [-1, 0]
Found Entropy: 0
\langle \text{Window}: 234 \rangle X: [-10, -9] Y: [0, 1]
Found Entropy: 0
<Window: 235 > X:[ -10 , -9 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 236 > X:[ -10 , -9 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 237 > X:[ -10 , -9 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window}: 238 \rangle X: [-10, -9] Y: [4, 5]
Found Entropy: 0
\langle \text{Window: } 239 \rangle \ \text{X:[} -9 \ , -8 \ ] \ \text{Y:[} -9 \ , -8 \ ]
Found Entropy: 0
\langle \text{Window: } 240 \rangle \text{ X:} [ -9 , -8 ] \text{ Y:} [ -8 , -7 ]
Found Entropy: 0
\langle \text{Window: } 241 \rangle \ \text{X:[} -9 \ , -8 \ ] \ \text{Y:[} -7 \ , -6 \ ]
Found Entropy: 0
<Window: 242 > X:[ -9 , -8 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 243 \rangle X: [-9, -8] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 244 \rangle X: [-9, -8] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 245 \rangle X: [-9, -8] Y: [-3, -2]
```

```
Found Entropy: 0
<Window: 246 > X:[ -9 , -8 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 247 > X:[-9, -8] Y:[-1, 0]
Found Entropy: 0
<Window: 248 > X:[ -9 , -8 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 249 \rangle X:[-9, -8] Y:[1, 2]
Found Entropy: 0
\langle \text{Window}: 250 \rangle X: [-9, -8] Y: [2, 3]
Found Entropy: 0
<Window: 251 > X:[ -9 , -8 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 252 > X:[ -9 , -8 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 253 \rangle X: [-8, -7] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 254 \rangle X: [-8, -7] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 255 \rangle X: [-8, -7] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 256 \rangle X: [-8, -7] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 257 \rangle X: [-8, -7] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 258 \rangle X: [-8, -7] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 259 \rangle X: [-8, -7] Y: [-3, -2]
Found Entropy: 0
<Window: 260 > X:[ -8 , -7 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 261 > X:[ -8 , -7 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 262 > X:[-8, -7] Y:[0, 1]
Found Entropy: 0
<Window: 263 > X:[ -8 , -7 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window}: 264 \rangle X:[-8, -7] Y:[2, 3]
Found Entropy: 0
<Window: 265 > X:[ -8 , -7 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 266 > X:[ -8 , -7 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 267 \rangle \text{ X:[} -7 , -6 ] \text{ Y:[} -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 268 \rangle X: [-7, -6] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window: } 269 \rangle \text{ X:[} -7 , -6 ] \text{ Y:[} -7 , -6 ]
```

```
Found Entropy: 0
\forall x = 100 \times 100 \times 100 \times 1000 \times 1000
Found Entropy: 0
<Window: 271 > X:[-7, -6] Y:[-5, -4]
Found Entropy: 0
\langle \text{Window}: 272 \rangle X: [-7, -6] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 273 \rangle X: [-7, -6] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 274 \rangle X: [-7, -6] Y: [-2, -1]
Found Entropy: 0
<Window: 275 > X:[-7, -6] Y:[-1, 0]
Found Entropy: 0
<Window: 276 > X:[ -7 , -6 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 277 \rangle X:[-7,-6] Y:[1,2]
Found Entropy: 0
\langle \text{Window}: 278 \rangle X:[-7,-6] Y:[2,3]
Found Entropy: 0
\langle \text{Window}: 279 \rangle X: [-7, -6] Y: [3, 4]
Found Entropy: 0
<Window: 280 > X:[ -7 , -6 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 281 \rangle X: [-6, -5] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 282 \rangle X: [-6, -5] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window: 283} \rangle X: [-6, -5] Y: [-7, -6]
Found Entropy: 0
<Window: 284 > X:[ -6 , -5 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 285 > X:[-6, -5] Y:[-5, -4]
Found Entropy: 0
\langle \text{Window}: 286 \rangle X: [-6, -5] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window: } 287 \rangle \text{ X:} [ -6 , -5 ] \text{ Y:} [ -3 , -2 ]
Found Entropy: 0
\langle \text{Window: 288} \rangle \text{ X:} [ -6 , -5 ] \text{ Y:} [ -2 , -1 ]
Found Entropy: 0
\langle \text{Window: 289} \rangle X: [-6, -5] Y: [-1, 0]
Found Entropy: 0
<Window: 290 > X:[ -6 , -5 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 291 > X:[ -6 , -5 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window}: 292 \rangle X: [-6, -5] Y: [2, 3]
Found Entropy: 0
<Window: 293 > X:[ -6 , -5 ] Y:[ 3 , 4 ]
```

```
Found Entropy: 0
<Window: 294 > X:[ -6 , -5 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 295 > X:[ -5 , -4 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 296 > X:[ -5 , -4 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window: } 297 \rangle \text{ X:} [-5, -4] \text{ Y:} [-7, -6]
Found Entropy: 0
<Window: 298 > X:[ -5 , -4 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 299 \rangle X: [-5, -4] Y: [-5, -4]
Found Entropy: 0
<Window: 300 > X:[ -5 , -4 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 301 \rangle X: [-5, -4] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 302 \rangle X: [-5, -4] Y: [-2, -1]
Found Entropy: 0
<Window: 303 > X:[ -5 , -4 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 304 > X:[ -5 , -4 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 305 \rangle X: [-5, -4] Y: [1, 2]
Found Entropy: 0
\langle Window: 306 \rangle X: [-5, -4] Y: [2, 3]
Found Entropy: 0
<Window: 307 > X:[ -5 , -4 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 308 > X:[ -5 , -4 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 309 > X:[ -4 , -3 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 310 \rangle X: [-4, -3] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 311 > X: [-4, -3] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 312 \rangle X: [-4, -3] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 313 \rangle X: [-4, -3] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 314 \rangle X: [-4, -3] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 315 \rangle X: [-4, -3] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 316 \rangle X: [-4, -3] Y: [-2, -1]
Found Entropy: 0
<Window: 317 > X:[-4, -3] Y:[-1, 0]
```

```
Found Entropy: 0
<Window: 318 > X:[ -4 , -3 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 319 \rangle X: [-4, -3] Y: [1, 2]
Found Entropy: 0
\langle \text{Window}: 320 \rangle X: [-4, -3] Y: [2, 3]
Found Entropy: 0
\langle \text{Window}: 321 \rangle X: [-4, -3] Y: [3, 4]
Found Entropy: 0
\langle \text{Window}: 322 \rangle X: [-4, -3] Y: [4, 5]
Found Entropy: 0
\langle \text{Window}: 323 \rangle X: [-3, -2] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 324 \rangle X:[-3, -2] Y:[-8, -7]
Found Entropy: 0
\langle \text{Window}: 325 \rangle X: [-3, -2] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 326 \rangle X: [-3, -2] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 327 \rangle X: [-3, -2] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 328 \rangle X: [-3, -2] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 329 \rangle X: [-3, -2] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 330 \rangle X: [-3, -2] Y: [-2, -1]
Found Entropy: 0
<Window: 331 > X:[ -3 , -2 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 332 > X:[ -3 , -2 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 333 > X:[ -3 , -2 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 334 > X:[-3, -2] Y:[2, 3]
Found Entropy: 0
<Window: 335 > X:[ -3 , -2 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 336 > X:[ -3 , -2 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 337 \rangle \text{ X:} [-2, -1] \text{ Y:} [-9, -8]
Found Entropy: 0
\langle \text{Window}: 338 \rangle X: [-2, -1] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window: } 339 \rangle \ \text{X:[} -2 \ , -1 \ ] \ \text{Y:[} -7 \ , -6 \ ]
Found Entropy: 0
\langle \text{Window}: 340 \rangle X: [-2, -1] Y: [-6, -5]
Found Entropy: 0
\forall x : [-2, -1] \ Y: [-5, -4]
```

```
Found Entropy: 0
<Window: 342 > X:[ -2 , -1 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 343 > X:[ -2 , -1 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 344 > X:[-2, -1] Y:[-2, -1]
Found Entropy: 0
\langle \text{Window: } 345 \rangle \text{ X:[} -2 , -1 ] \text{ Y:[} -1 , 0 ]
Found Entropy: 0
<Window: 346 > X:[ -2 , -1 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 347 \rangle X:[-2,-1] Y:[1,2]
Found Entropy: 0
\langle \text{Window}: 348 \rangle X: [-2, -1] Y: [2, 3]
Found Entropy: 0
<Window: 349 > X:[ -2 , -1 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 350 > X:[ -2 , -1 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 351 \rangle X: [-1, 0] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window: } 352 \rangle \text{ X:} [-1, 0] \text{ Y:} [-8, -7]
Found Entropy: 0
\langle \text{Window}: 353 \rangle X: [-1, 0] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 354 \rangle X: [-1, 0] Y: [-6, -5]
Found Entropy: 0
<Window: 355 > X:[-1, 0] Y:[-5, -4]
Found Entropy: 0
<Window: 356 > X:[ -1 , 0 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 357 > X:[-1, 0] Y:[-3, -2]
Found Entropy: 0
\langle \text{Window}: 358 \rangle X: [-1, 0] Y: [-2, -1]
Found Entropy: 0
<Window: 359 > X:[ -1 , 0 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 360 > X:[ -1 , 0 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 361 > X:[ -1 , 0 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window}: 362 \rangle X: [-1, 0] Y: [2, 3]
Found Entropy: 0
<Window: 363 > X:[ -1 , 0 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 364 > X:[ -1 , 0 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 365 > X:[0, 1] Y:[-9, -8]
```

```
Found Entropy: 0
<Window: 366 > X:[0, 1] Y:[-8, -7]
Found Entropy: 0
<Window: 367 > X:[ 0 , 1 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 368 > X:[0, 1] Y:[-6, -5]
Found Entropy: 0
<Window: 369 > X:[ 0 , 1 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 370 \rangle X: [0, 1] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 371 > X:[0,1] Y:[-3,-2]
Found Entropy: 0
\langle \text{Window}: 372 \rangle X:[0,1] Y:[-2,-1]
Found Entropy: 0
<Window: 373 > X:[ 0 , 1 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 374 > X:[ 0 , 1 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 375 > X:[ 0 , 1 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 376 > X:[ 0 , 1 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 377 > X:[0,1] Y:[3,4]
Found Entropy: 0
\langle Window: 378 \rangle X: [0, 1] Y: [4, 5]
Found Entropy: 0
\langle \text{Window}: 379 \rangle X:[1,2] Y:[-9,-8]
Found Entropy: 0
<Window: 380 > X:[ 1 , 2 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window}: 381 \rangle X: [1, 2] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 382 \rangle X: [1, 2] Y: [-6, -5]
Found Entropy: 0
<Window: 383 > X:[ 1 , 2 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 384 > X:[ 1 , 2 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 385 > X:[1,2] Y:[-3,-2]
Found Entropy: 0
<Window: 386 > X:[ 1 , 2 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 387 > X:[1,2] Y:[-1,0]
Found Entropy: 0
<Window: 388 > X:[ 1 , 2 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 389 > X:[ 1 , 2 ] Y:[ 1 , 2 ]
```

```
Found Entropy: 0
<Window: 390 > X:[ 1 , 2 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 391 > X:[1, 2] Y:[3, 4]
Found Entropy: 0
<Window: 392 > X:[1,2] Y:[4,5]
Found Entropy: 0
\langle \text{Window}: 393 \rangle X: [2, 3] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 394 \rangle X: [2, 3] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 395 \rangle X: [2, 3] Y: [-7, -6]
Found Entropy: 0
<Window: 396 > X:[ 2 , 3 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 397 > X:[ 2 , 3 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 398 \rangle X: [2, 3] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 399 \rangle X: [2, 3] Y: [-3, -2]
Found Entropy: 0
<Window: 400 > X:[ 2 , 3 ] Y:[ -2 , -1 ]
Found Entropy: 0
\langle \text{Window}: 401 \rangle X: [2, 3] Y: [-1, 0]
Found Entropy: 0
<Window: 402 > X:[2,3] Y:[0,1]
Found Entropy: 0
<Window: 403 > X:[ 2 , 3 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 404 > X:[2,3] Y:[2,3]
Found Entropy: 0
<Window: 405 > X:[2,3] Y:[3,4]
Found Entropy: 0
<Window: 406 > X:[2,3] Y:[4,5]
Found Entropy: 0
<Window: 407 > X:[3, 4] Y:[-9, -8]
Found Entropy: 0
<Window: 408 > X:[3,4] Y:[-8,-7]
Found Entropy: 0
<Window: 409 > X:[3,4] Y:[-7,-6]
Found Entropy: 0
<Window: 410 > X:[ 3 , 4 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 411 > X:[ 3 , 4 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 412 > X:[ 3 , 4 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 413 \rangle X: [3, 4] Y: [-3, -2]
```

```
Found Entropy: 0
<Window: 414 > X:[3, 4] Y:[-2, -1]
Found Entropy: 0
<Window: 415 > X:[ 3 , 4 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 416 > X:[ 3 , 4 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 417 > X:[ 3 , 4 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 418 > X:[ 3 , 4 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 419 > X:[ 3 , 4 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 420 > X:[ 3 , 4 ] Y:[ 4 , 5 ]
Found Entropy: 0
\{\text{Window: } 421 > X: [4, 5] Y: [-9, -8]
Found Entropy: 0
\{\text{Window: } 422 > X: [4, 5] Y: [-8, -7] \}
Found Entropy: 0
\langle \text{Window}: 423 \rangle X: [4, 5] Y: [-7, -6]
Found Entropy: 0
<Window: 424 > X:[ 4 , 5 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 425 > X:[ 4 , 5 ] Y:[ -5 , -4 ]
Found Entropy: 0
\{\text{Window}: 426 > X: [4, 5] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 427 \rangle X: [4, 5] Y: [-3, -2]
Found Entropy: 0
\{\text{Window: } 428 > X: [4, 5] Y: [-2, -1]
Found Entropy: 0
<Window: 429 > X:[ 4 , 5 ] Y:[ -1 , 0 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 430 > X:[ 4 , 5 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 431 > X:[ 4 , 5 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 432 > X:[ 4 , 5 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 433 > X:[ 4 , 5 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 434 > X:[4,5] Y:[4,5]
Found Entropy: 0
<Window: 435 > X:[5,6] Y:[-9,-8]
Found Entropy: 0
<Window: 436 > X:[5,6] Y:[-8,-7]
Found Entropy: 0
```

```
<Window: 437 > X:[5,6] Y:[-7,-6]
Found Entropy: 0
<Window: 438 > X:[5,6] Y:[-6,-5]
Found Entropy: 0
<Window: 439 > X:[5,6] Y:[-5,-4]
Found Entropy: 0
<Window: 440 > X:[5,6] Y:[-4,-3]
Found Entropy: 0
\{\text{Window: } 441 > X: [5, 6] Y: [-3, -2]
Found Entropy: 0
\{\text{Window}: 442 > X: [5, 6] Y: [-2, -1]\}
Found Entropy: 0
<Window: 443 > X:[5, 6] Y:[-1, 0]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 444 > X:[5,6] Y:[0,1]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 445 > X:[ 5 , 6 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 446 > X:[5,6] Y:[2,3]
Found Entropy: 0
<Window: 447 > X:[5, 6] Y:[3, 4]
Found Entropy: 0
<Window: 448 > X:[5,6] Y:[4,5]
Found Entropy: 0
<Window: 449 > X:[ 6 , 7 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 450 > X:[ 6 , 7 ] Y:[ -8 , -7 ]
Found Entropy: 0
\{\text{Window: } 451 > X: [6, 7] Y: [-7, -6]
Found Entropy: 0
<Window: 452 > X:[6,7] Y:[-6,-5]
Found Entropy: 0
<Window: 453 > X:[ 6 , 7 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 454 > X:[6,7] Y:[-4,-3]
Found Entropy: 0
<Window: 455 > X:[ 6 , 7 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 456 > X:[ 6 , 7 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 457 > X:[6,7] Y:[-1,0]
Found a sample of class: 0
Found a sample of class: 1
```

```
Found a sample of class: 1
Found Entropy: 0.6365141682948128
<Window: 458 > X:[6,7] Y:[0,1]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 459 > X:[ 6 , 7 ] Y:[ 1 , 2 ]
Found a sample of class: 1
Found Entropy: 0.0
\{\text{Window}: 460 > X: [6, 7] Y: [2, 3]
Found Entropy: 0
<Window: 461 > X:[ 6 , 7 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 462 > X:[6,7] Y:[4,5]
Found Entropy: 0
<Window: 463 > X:[ 7 , 8 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 464 > X:[7,8] Y:[-8,-7]
Found Entropy: 0
<Window: 465 > X:[ 7 , 8 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 466 > X:[ 7 , 8 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 467 > X:[7,8] Y:[-5,-4]
Found Entropy: 0
<Window: 468 > X:[ 7 , 8 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 469 > X:[ 7 , 8 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 470 > X:[ 7 , 8 ] Y:[ -2 , -1 ]
Found a sample of class: 2
Found Entropy: 0.0
\{\text{Window: } 471 > X:[7,8] Y:[-1,0]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 472 > X:[ 7 , 8 ] Y:[ 0 , 1 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 473 > X:[ 7 , 8 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 474 > X:[7,8] Y:[2,3]
Found Entropy: 0
<Window: 475 > X:[ 7 , 8 ] Y:[ 3 , 4 ]
```

```
Found Entropy: 0
<Window: 476 > X:[7,8] Y:[4,5]
Found Entropy: 0
\{\text{Window: } 477 > X:[8,9] Y:[-9,-8]
Found Entropy: 0
<Window: 478 > X:[8, 9] Y:[-8, -7]
Found Entropy: 0
<Window: 479 > X:[8,9] Y:[-7,-6]
Found Entropy: 0
<Window: 480 > X:[8, 9] Y:[-6, -5]
Found Entropy: 0
<Window: 481 > X:[8, 9] Y:[-5, -4]
Found Entropy: 0
<Window: 482 > X:[8,9] Y:[-4,-3]
Found Entropy: 0
<Window: 483 > X:[8,9] Y:[-3,-2]
Found Entropy: 0
\langle \text{Window}: 484 \rangle X: [8, 9] Y: [-2, -1]
Found Entropy: 0
<Window: 485 > X:[8, 9] Y:[-1, 0]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 486 > X:[ 8 , 9 ] Y:[ 0 , 1 ]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 487 > X:[ 8 , 9 ] Y:[ 1 , 2 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 488 > X:[8,9] Y:[2,3]
Found Entropy: 0
<Window: 489 > X:[8, 9] Y:[3, 4]
Found Entropy: 0
<Window: 490 > X:[ 8 , 9 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 491 > X:[ 9 , 10 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 492 > X:[ 9 , 10 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 493 > X:[ 9 , 10 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 494 > X:[ 9 , 10 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 495 > X:[ 9 , 10 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 496 > X:[9, 10] Y:[-4, -3]
```

```
Found Entropy: 0
<Window: 497 > X:[9, 10] Y:[-3, -2]
Found Entropy: 0
<Window: 498 > X:[9, 10] Y:[-2, -1]
Found Entropy: 0
<Window: 499 > X:[9, 10] Y:[-1, 0]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 500 > X:[ 9 , 10 ] Y:[ 0 , 1 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 501 > X:[ 9 , 10 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 502 > X:[ 9 , 10 ] Y:[ 2 , 3 ]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 503 > X:[ 9 , 10 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 504 > X:[ 9 , 10 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 505 > X:[ 10 , 11 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 506 > X:[ 10 , 11 ] Y:[ -8 , -7 ]
Found Entropy: 0
\{Window: 507 > X:[ 10 , 11 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 508 > X:[ 10 , 11 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 509 > X:[ 10 , 11 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 510 > X:[ 10 , 11 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 511 > X:[ 10 , 11 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window: 512} \rangle X: [10, 11] Y: [-2, -1]
Found Entropy: 0
<Window: 513 > X:[ 10 , 11 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 514 > X:[ 10 , 11 ] Y:[ 0 , 1 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 515 > X:[ 10 , 11 ] Y:[ 1 , 2 ]
Found a sample of class: 1
Found Entropy: 0.0
```

```
<Window: 516 > X:[ 10 , 11 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 517 > X:[ 10 , 11 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 518 > X:[ 10 , 11 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 519 > X:[ 11 , 12 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 520 > X:[ 11 , 12 ] Y:[ -8 , -7 ]
Found Entropy: 0
\forall \text{Window: } 521 > X:[11, 12] Y:[-7, -6]
Found Entropy: 0
<Window: 522 > X:[ 11 , 12 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 523 > X:[ 11 , 12 ] Y:[ -5 , -4 ]
Found Entropy: 0
\forall x \in X : [11, 12] Y : [-4, -3]
Found Entropy: 0
\langle \text{Window}: 525 \rangle X: [11, 12] Y: [-3, -2]
Found Entropy: 0
\{Window: 526 > X:[11, 12] Y:[-2, -1]
Found Entropy: 0
<Window: 527 > X:[ 11 , 12 ] Y:[ -1 , 0 ]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 528 > X:[ 11 , 12 ] Y:[ 0 , 1 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 529 > X:[ 11 , 12 ] Y:[ 1 , 2 ]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 530 > X:[ 11 , 12 ] Y:[ 2 , 3 ]
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 531 > X:[ 11 , 12 ] Y:[ 3 , 4 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 532 > X:[11, 12] Y:[4, 5]
Found Entropy: 0
\langle \text{Window: 533} \rangle X: [12, 13] Y: [-9, -8]
Found Entropy: 0
<Window: 534 > X:[ 12 , 13 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 535 > X:[ 12 , 13 ] Y:[ -7 , -6 ]
Found Entropy: 0
```

```
<Window: 536 > X:[ 12 , 13 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 537 \rangle \text{ X:} [ 12 , 13 ] \text{ Y:} [ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 538 \rangle X: [12, 13] Y: [-4, -3]
Found Entropy: 0
<Window: 539 > X:[ 12 , 13 ] Y:[ -3 , -2 ]
Found Entropy: 0
\{\text{Window: 540} > \text{X:[12,13]} \text{Y:[-2,-1]}
Found Entropy: 0
<Window: 541 > X:[12, 13] Y:[-1, 0]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 542 > X:[ 12 , 13 ] Y:[ 0 , 1 ]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.6365141682948128
<Window: 543 > X:[ 12 , 13 ] Y:[ 1 , 2 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 544 > X:[ 12 , 13 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 545 > X:[ 12 , 13 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 1.0397207708399179
<Window: 546 > X:[ 12 , 13 ] Y:[ 4 , 5 ]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 547 > X:[ 13 , 14 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 548 \rangle X: [13, 14] Y: [-8, -7]
Found Entropy: 0
<Window: 549 > X:[13, 14] Y:[-7, -6]
Found Entropy: 0
<Window: 550 > X:[ 13 , 14 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 551 \rangle X:[13, 14] Y:[-5, -4]
Found Entropy: 0
<Window: 552 > X:[ 13 , 14 ] Y:[ -4 , -3 ]
Found Entropy: 0
```

```
\langle \text{Window}: 553 \rangle X: [13, 14] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 554 \rangle X: [13, 14] Y: [-2, -1]
Found Entropy: 0
<Window: 555 > X:[ 13 , 14 ] Y:[ -1 , 0 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 556 > X:[ 13 , 14 ] Y:[ 0 , 1 ]
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.6931471805599453
<Window: 557 > X:[ 13 , 14 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 558 > X:[ 13 , 14 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 559 > X:[ 13 , 14 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 560 > X:[ 13 , 14 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 561 > X:[ 14 , 15 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 562 > X:[ 14 , 15 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 563 > X:[ 14 , 15 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 564 > X:[ 14 , 15 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 565 > X:[ 14 , 15 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 566 > X:[ 14 , 15 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 567 > X:[ 14 , 15 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window}: 568 \rangle X: [14, 15] Y: [-2, -1]
Found Entropy: 0
<Window: 569 > X:[ 14 , 15 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 570 > X:[ 14 , 15 ] Y:[ 0 , 1 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 571 > X:[ 14 , 15 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 572 > X:[ 14 , 15 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 573 > X:[ 14 , 15 ] Y:[ 3 , 4 ]
```

```
Found a sample of class: 2
Found Entropy: 0.0
<Window: 574 > X:[ 14 , 15 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 575 \rangle X: [15, 16] Y: [-9, -8]
Found Entropy: 0
<Window: 576 > X:[ 15 , 16 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window}: 577 \rangle X: [15, 16] Y: [-7, -6]
Found Entropy: 0
<Window: 578 > X:[ 15 , 16 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: 579} \rangle X: [15, 16] Y: [-5, -4]
Found Entropy: 0
<Window: 580 > X:[ 15 , 16 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 581 > X:[ 15 , 16 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 582 > X:[ 15 , 16 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 583 > X:[ 15 , 16 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 584 > X:[ 15 , 16 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 585 > X:[ 15 , 16 ] Y:[ 1 , 2 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 586 > X:[ 15 , 16 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 587 > X:[ 15 , 16 ] Y:[ 3 , 4 ]
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 588 > X:[ 15 , 16 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 589 > X:[ 16 , 17 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 590 > X:[ 16 , 17 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 591 > X:[ 16 , 17 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 592 > X:[ 16 , 17 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 593 > X:[ 16 , 17 ] Y:[ -5 , -4 ]
Found Entropy: 0
\forall Window: 594 > X:[ 16 , 17 ] Y:[ -4 , -3 ]
```

```
Found Entropy: 0
<Window: 595 > X:[ 16 , 17 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 596 > X:[ 16 , 17 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 597 > X:[ 16 , 17 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 598 > X:[ 16 , 17 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 599 > X:[ 16 , 17 ] Y:[ 1 , 2 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 600 > X:[ 16 , 17 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 601 > X:[ 16 , 17 ] Y:[ 3 , 4 ]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 602 > X:[ 16 , 17 ] Y:[ 4 , 5 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 603 > X:[ 17 , 18 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 604 > X:[ 17 , 18 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 605 > X:[ 17 , 18 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 606 > X:[ 17 , 18 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 607 > X:[ 17 , 18 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 608 > X:[ 17 , 18 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 609 \rangle \text{ X:} [17, 18] \text{ Y:} [-3, -2]
Found Entropy: 0
<Window: 610 > X:[ 17 , 18 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 611 > X:[ 17 , 18 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 612 > X:[ 17 , 18 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 613 > X:[ 17 , 18 ] Y:[ 1 , 2 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
```

```
<Window: 614 > X:[ 17 , 18 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 615 > X:[ 17 , 18 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 616 > X:[ 17 , 18 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 617 \rangle \text{ X:} [ 18 , 19 ] \text{ Y:} [ -9 , -8 ]
Found Entropy: 0
<Window: 618 > X:[ 18 , 19 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window: 619} \rangle X: [18, 19] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window: } 620 \rangle \text{ X:} [ 18 , 19 ] \text{ Y:} [ -6 , -5 ]
Found Entropy: 0
<Window: 621 > X:[ 18 , 19 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 622 > X:[ 18 , 19 ] Y:[ -4 , -3 ]
Found Entropy: 0
\{Window: 623 > X:[18, 19] Y:[-3, -2]
Found Entropy: 0
\{\text{Window: } 624 > X: [18, 19] Y: [-2, -1]
Found Entropy: 0
<Window: 625 > X:[ 18 , 19 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 626 > X:[ 18 , 19 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 627 > X:[ 18 , 19 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 628 > X:[ 18 , 19 ] Y:[ 2 , 3 ]
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 629 > X:[ 18 , 19 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.6365141682948128
<Window: 630 > X:[ 18 , 19 ] Y:[ 4 , 5 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 631 > X:[ 19 , 20 ] Y:[ -9 , -8 ]
Found Entropy: 0
```

```
\langle \text{Window: } 632 \rangle \text{ X:} [ 19 , 20 ] \text{ Y:} [ -8 , -7 ]
Found Entropy: 0
\langle \text{Window: } 633 \rangle \text{ X:} [ 19 , 20 ] \text{ Y:} [ -7 , -6 ]
Found Entropy: 0
\{Window: 634 > X:[19, 20] Y:[-6, -5]
Found Entropy: 0
<Window: 635 > X:[ 19 , 20 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 636 > X:[ 19 , 20 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 637 \rangle \text{ X:} [ 19 , 20 ] \text{ Y:} [ -3 , -2 ]
Found Entropy: 0
\langle \text{Window: 638} \rangle \text{ X:} [ 19 , 20 ] \text{ Y:} [ -2 , -1 ]
Found Entropy: 0
<Window: 639 > X:[ 19 , 20 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 640 > X:[ 19 , 20 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 641 > X:[ 19 , 20 ] Y:[ 1 , 2 ]
Found Entropy: 0
\{\text{Window: } 642 > X: [19, 20] Y: [2, 3]
Found Entropy: 0
<Window: 643 > X:[ 19 , 20 ] Y:[ 3 , 4 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 644 > X:[ 19 , 20 ] Y:[ 4 , 5 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 645 > X:[ 20 , 21 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 646 > X:[ 20 , 21 ] Y:[ -8 , -7 ]
Found Entropy: 0
\{\text{Window: } 647 > X: [20, 21] Y: [-7, -6]
Found Entropy: 0
\{\text{Window: } 648 > X: [20, 21] Y: [-6, -5]
Found Entropy: 0
<Window: 649 > X:[ 20 , 21 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 650 > X:[ 20 , 21 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 651 > X:[ 20 , 21 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 652 > X:[ 20 , 21 ] Y:[ -2 , -1 ]
Found Entropy: 0
```

```
<Window: 653 > X:[ 20 , 21 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 654 > X:[ 20 , 21 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 655 > X:[ 20 , 21 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 656 > X:[ 20 , 21 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 657 > X:[ 20 , 21 ] Y:[ 3 , 4 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 658 > X:[ 20 , 21 ] Y:[ 4 , 5 ]
Found a sample of class: 2
Found Entropy: 0.0
Total Count: 658
Expected Count: 658
OKAY: True
----Done--- 8.73851878067532
Done!
-26 21 -9 5
You Can use this matrix now.
X_{min} = -26
X \max = 21
Y_{min} = -9
Y_max=5
And the Matrix Shape: 47 * 14
\{\text{Window: 1 > X:[-26,-25] Y:[-9,-8]}
Found Entropy: 0
\{\text{Window: 2 > X:[-26,-25] Y:[-8,-7]}
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\{\text{Window: 3 > X:[-26,-25] Y:[-7,-6]}
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window: 4} \rangle \text{ X:[-26,-25] Y:[-6,-5]}
Found Entropy: 0
\{\text{Window: 5 > X: [-26, -25] Y: [-5, -4]}
Found Entropy: 0
<Window: 6 > X:[ -26 , -25 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: 7 > X:[-26,-25] Y:[-3,-2]}
Found Entropy: 0
<Window: 8 > X:[ -26 , -25 ] Y:[ -2 , -1 ]
```

```
Found Entropy: 0
<Window: 9 > X:[ -26 , -25 ] Y:[ -1 , 0 ]
Found Entropy: 0
\{\text{Window: } 10 > \text{X:} [-26, -25] \text{ Y:} [0, 1]
Found Entropy: 0
<Window: 11 > X:[ -26 , -25 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window}: 12 \rangle X: [-26, -25] Y: [2, 3]
Found Entropy: 0
<Window: 13 > X:[ -26 , -25 ] Y:[ 3 , 4 ]
Found Entropy: 0
\{\text{Window: } 14 > X: [-26, -25] \ Y: [4, 5] \}
Found Entropy: 0
<Window: 15 > X:[ -25 , -24 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 16 \rangle X: [-25, -24] Y: [-8, -7]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 17 > X:[-25, -24] Y:[-7, -6]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.5623351446188083
\{Window: 18 > X:[ -25 , -24 ] Y:[ -6 , -5 ]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 19 \rangle X: [-25, -24] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 20 \rangle X: [-25, -24] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 21 \rangle X: [-25, -24] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 22 \rangle X: [-25, -24] Y: [-2, -1]
Found Entropy: 0
<Window: 23 > X:[ -25 , -24 ] Y:[ -1 , 0 ]
Found Entropy: 0
\{\text{Window: } 24 > X:[-25, -24] \ Y:[0, 1]
Found Entropy: 0
<Window: 25 > X:[-25, -24] Y:[1, 2]
Found Entropy: 0
<Window: 26 > X:[ -25 , -24 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 27 > X:[ -25 , -24 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window: 28} \rangle X: [-25, -24] Y: [4, 5]
Found Entropy: 0
```

```
\langle \text{Window: } 29 \rangle \text{ X:} [ -24 , -23 ] \text{ Y:} [ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 30 \rangle X: [-24, -23] Y: [-8, -7]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 31 \rangle X: [-24, -23] Y: [-7, -6]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.5623351446188083
\langle \text{Window}: 32 \rangle X: [-24, -23] Y: [-6, -5]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 33 \rangle X: [-24, -23] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 34 \rangle X: [-24, -23] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 35 \rangle X: [-24, -23] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 36 \rangle X: [-24, -23] Y: [-2, -1]
Found Entropy: 0
<Window: 37 > X:[-24, -23] Y:[-1, 0]
Found Entropy: 0
<Window: 38 > X:[ -24 , -23 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window: } 39 \rangle \text{ X:[} -24 , -23 ] \text{ Y:[} 1 , 2 ]
Found Entropy: 0
<Window: 40 > X:[ -24 , -23 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 41 > X:[ -24 , -23 ] Y:[ 3 , 4 ]
Found Entropy: 0
\{\text{Window: } 42 > X: [-24, -23] Y: [4, 5]
Found Entropy: 0
\langle \text{Window: } 43 \rangle \ \text{X:[} -23 \ , -22 \ ] \ \text{Y:[} -9 \ , -8 \ ]
Found Entropy: 0
\langle \text{Window}: 44 \rangle X: [-23, -22] Y: [-8, -7]
Found a sample of class: 0
Found Entropy: 0.0
\forall X: [-23, -22] Y: [-7, -6]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.6931471805599453
\{\text{Window: } 46 > \text{X:} [-23, -22] \text{ Y:} [-6, -5] \}
Found a sample of class: 0
```

```
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 47 \rangle X: [-23, -22] Y: [-5, -4]
Found Entropy: 0
\{Window: 48 > X: [ -23 , -22 ] Y: [ -4 , -3 ] 
Found Entropy: 0
\langle \text{Window}: 49 \rangle X: [-23, -22] Y: [-3, -2]
Found Entropy: 0
\{Window: 50 > X: [ -23 , -22 ] Y: [ -2 , -1 ]
Found Entropy: 0
\{\text{Window: 51} > \text{X:[-23,-22]} \text{Y:[-1,0]}
Found Entropy: 0
\langle \text{Window: 52} \rangle X: [-23, -22] Y: [0, 1]
Found Entropy: 0
<Window: 53 > X:[ -23 , -22 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 54 > X:[ -23 , -22 ] Y:[ 2 , 3 ]
Found Entropy: 0
\forall x \in X : [-23, -22] Y : [3, 4]
Found Entropy: 0
\{\text{Window: } 56 > \text{X:} [-23, -22] \text{ Y:} [4, 5]
Found Entropy: 0
\langle \text{Window: 57} \rangle \text{ X: [ -22 , -21 ] Y: [ -9 , -8 ]}
Found Entropy: 0
\langle \text{Window: 58} \rangle \text{ X:} [-22, -21] \text{ Y:} [-8, -7]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
<Window: 59 > X:[ -22 , -21 ] Y:[ -7 , -6 ]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\{\text{Window: }60 > \text{X:}[-22, -21] \text{ Y:}[-6, -5]
Found Entropy: 0
\langle \text{Window}: 61 \rangle X: [-22, -21] Y: [-5, -4]
Found Entropy: 0
\{\text{Window: } 62 > X: [-22, -21] \ Y: [-4, -3] \}
Found Entropy: 0
\{Window: 63 > X: [ -22 , -21 ] Y: [ -3 , -2 ]
Found Entropy: 0
<Window: 64 > X:[ -22 , -21 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 65 > X:[ -22 , -21 ] Y:[ -1 , 0 ]
Found Entropy: 0
\forall \text{Window: } 66 > X:[-22, -21] Y:[0, 1]
Found Entropy: 0
\forall \text{Window: } 67 > X:[-22, -21] Y:[1, 2]
Found Entropy: 0
```

```
\langle \text{Window: 68} \rangle X: [-22, -21] Y: [2, 3]
Found Entropy: 0
<Window: 69 > X:[ -22 , -21 ] Y:[ 3 , 4 ]
Found Entropy: 0
\{\text{Window: 70} > \text{X:[-22,-21]} \text{Y:[4,5]}
Found Entropy: 0
\langle \text{Window}: 71 \rangle X: [-21, -20] Y: [-9, -8]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 72 \rangle X: [-21, -20] Y: [-8, -7]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 0.6365141682948128
\langle \text{Window}: 73 \rangle X: [-21, -20] Y: [-7, -6]
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 0.45056120886630463
\langle \text{Window: 74} \rangle \text{ X: [-21, -20] Y: [-6, -5]}
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 0.6931471805599453
\langle \text{Window}: 75 \rangle X: [-21, -20] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 76 \rangle X: [-21, -20] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 77 > X: [ -21 , -20 ] Y: [ -3 , -2 ]
Found Entropy: 0
\{Window: 78 > X:[ -21 , -20 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 79 > X:[-21, -20] Y:[-1, 0]
Found Entropy: 0
<Window: 80 > X:[ -21 , -20 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 81 > X:[ -21 , -20 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 82 > X:[ -21 , -20 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 83 > X:[ -21 , -20 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 84 > X:[ -21 , -20 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 85 > X:[ -20 , -19 ] Y:[ -9 , -8 ]
Found Entropy: 0
```

```
\langle \text{Window: 86} \rangle \text{ X: [ -20 , -19 ] Y: [ -8 , -7 ]}
Found a sample of class: 0
Found Entropy: 0.0
\{Window: 87 > X:[ -20 , -19 ] Y:[ -7 , -6 ]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.6931471805599453
\langle \text{Window: 88} \rangle \text{ X: [ -20 , -19 ] Y: [ -6 , -5 ]}
Found Entropy: 0
\langle \text{Window: 89} \rangle \text{ X:} [-20, -19] \text{ Y:} [-5, -4]
Found Entropy: 0
\langle \text{Window: } 90 \rangle \text{ X: [ } -20 \text{ , } -19 \text{ ] } \text{ Y: [ } -4 \text{ , } -3 \text{ ]}
Found Entropy: 0
\langle \text{Window: } 91 \rangle \ \text{X:[} -20 \ , -19 \ ] \ \text{Y:[} -3 \ , -2 \ ]
Found Entropy: 0
\langle \text{Window: } 92 \rangle \ \text{X:[} -20 \ , -19 \ ] \ \text{Y:[} -2 \ , -1 \ ]
Found Entropy: 0
\langle \text{Window}: 93 \rangle X: [-20, -19] Y: [-1, 0]
Found Entropy: 0
\langle \text{Window}: 94 \rangle X: [-20, -19] Y: [0, 1]
Found Entropy: 0
\{\text{Window: 95} > \text{X:[-20,-19]} \text{Y:[1,2]}
Found Entropy: 0
\langle \text{Window}: 96 \rangle X: [-20, -19] Y: [2, 3]
Found Entropy: 0
<Window: 97 > X:[ -20 , -19 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window: 98} \rangle X: [-20, -19] Y: [4, 5]
Found Entropy: 0
\langle \text{Window: 99} \rangle \text{ X:} [-19, -18] \text{ Y:} [-9, -8]
Found Entropy: 0
\{Window: 100 > X:[ -19 , -18 ] Y:[ -8 , -7 ]
Found a sample of class: 0
Found Entropy: 0.0
\{Window: 101 > X:[-19, -18] Y:[-7, -6]
Found Entropy: 0
\{Window: 102 > X:[-19, -18] Y:[-6, -5]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 103 > X:[ -19 , -18 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 104 \rangle X: [-19, -18] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window: } 105 \rangle \text{ X:[} -19 , -18 ] \text{ Y:[} -3 , -2 ]
Found Entropy: 0
\langle Window: 106 \rangle X:[-19, -18] Y:[-2, -1]
```

```
Found Entropy: 0
<Window: 107 > X:[ -19 , -18 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 108 > X:[ -19 , -18 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 109 > X:[ -19 , -18 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window: } 110 \rangle \ \text{X:[} -19 \ , -18 \ ] \ \text{Y:[} 2 \ , 3 \ ]
Found Entropy: 0
<Window: 111 > X:[ -19 , -18 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 112 > X:[ -19 , -18 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 113 \rangle X: [-18, -17] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window: } 114 \rangle \text{ X:[} -18 , -17 ] \text{ Y:[} -8 , -7 ]
Found Entropy: 0
\langle \text{Window: } 115 \rangle \text{ X:[} -18 , -17 ] \text{ Y:[} -7 , -6 ]
Found Entropy: 0
<Window: 116 > X:[ -18 , -17 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 117 \rangle \ \text{X:[} -18 \ , -17 \ ] \ \text{Y:[} -5 \ , -4 \ ]
Found Entropy: 0
<Window: 118 > X:[ -18 , -17 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 119 \rangle X: [-18, -17] Y: [-3, -2]
Found Entropy: 0
\forall \text{Window: } 120 > X:[-18, -17] Y:[-2, -1]
Found Entropy: 0
<Window: 121 > X:[ -18 , -17 ] Y:[ -1 , 0 ]
Found Entropy: 0
\langle \text{Window: } 122 \rangle X:[-18, -17] Y:[0, 1]
Found Entropy: 0
<Window: 123 > X:[ -18 , -17 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window: } 124 \rangle \ \text{X:[} -18 \ , -17 \ ] \ \text{Y:[} 2 \ , 3 \ ]
Found Entropy: 0
\langle \text{Window: } 125 \rangle \text{ X:[} -18 , -17 ] \text{ Y:[} 3 , 4 ]
Found Entropy: 0
\langle \text{Window: } 126 \rangle \ \text{X:[} -18 \ , -17 \ ] \ \text{Y:[} 4 \ , 5 \ ]
Found Entropy: 0
<Window: 127 > X:[ -17 , -16 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 128 > X:[ -17 , -16 ] Y:[ -8 , -7 ]
Found Entropy: 0
\forall \text{Window: } 129 > X:[-17, -16] Y:[-7, -6]
Found Entropy: 0
\langle \text{Window: } 130 \rangle \text{ X:[} -17 , -16 ] \text{ Y:[} -6 , -5 ]
```

```
Found Entropy: 0
<Window: 131 > X:[ -17 , -16 ] Y:[ -5 , -4 ]
Found Entropy: 0
\forall x = 132 > x : [ -17 , -16 ] Y : [ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 133 \rangle \ \text{X:[} -17 \ , -16 \ ] \ \text{Y:[} -3 \ , -2 \ ]
Found Entropy: 0
\langle \text{Window: } 134 \rangle \ \text{X:[} -17 \ , -16 \ ] \ \text{Y:[} -2 \ , -1 \ ]
Found Entropy: 0
\langle \text{Window}: 135 \rangle X: [-17, -16] Y: [-1, 0]
Found Entropy: 0
<Window: 136 > X:[ -17 , -16 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 137 > X:[ -17 , -16 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window: } 138 \rangle \ \text{X:[} -17 \ , -16 \ ] \ \text{Y:[} 2 \ , 3 \ ]
Found Entropy: 0
<Window: 139 > X:[ -17 , -16 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window}: 140 \rangle X: [-17, -16] Y: [4, 5]
Found Entropy: 0
\langle \text{Window: } 141 \rangle \ \text{X:[} -16 \ , -15 \ ] \ \text{Y:[} -9 \ , -8 \ ]
Found Entropy: 0
<Window: 142 > X:[ -16 , -15 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window}: 143 \rangle X: [-16, -15] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 144 \rangle X: [-16, -15] Y: [-6, -5]
Found Entropy: 0
<Window: 145 > X:[ -16 , -15 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 146 \rangle X: [-16, -15] Y: [-4, -3]
Found Entropy: 0
\{Window: 147 > X:[-16, -15] Y:[-3, -2]
Found Entropy: 0
\langle \text{Window: } 148 \rangle \ \text{X:[} -16 \ , -15 \ ] \ \text{Y:[} -2 \ , -1 \ ]
Found Entropy: 0
\langle \text{Window: } 149 \rangle \ \text{X:[} -16 \ , -15 \ ] \ \text{Y:[} -1 \ , 0 \ ]
Found Entropy: 0
\langle \text{Window: } 150 \rangle \text{ X:} [ -16 , -15 ] \text{ Y:} [ 0 , 1 ]
Found Entropy: 0
<Window: 151 > X:[ -16 , -15 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 152 > X:[ -16 , -15 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 153 > X:[ -16 , -15 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window}: 154 \rangle X: [-16, -15] Y: [4, 5]
```

```
Found Entropy: 0
<Window: 155 > X:[ -15 , -14 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 156 > X:[ -15 , -14 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window}: 157 \rangle X: [-15, -14] Y: [-7, -6]
Found Entropy: 0
<Window: 158 > X:[ -15 , -14 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 159 > X:[ -15 , -14 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 160 \rangle X: [-15, -14] Y: [-4, -3]
Found Entropy: 0
<Window: 161 > X:[ -15 , -14 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window}: 162 \rangle X: [-15, -14] Y: [-2, -1]
Found Entropy: 0
<Window: 163 > X:[ -15 , -14 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 164 > X:[ -15 , -14 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 165 > X:[ -15 , -14 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 166 > X:[ -15 , -14 ] Y:[ 2 , 3 ]
Found Entropy: 0
\langle \text{Window}: 167 \rangle X: [-15, -14] Y: [3, 4]
Found Entropy: 0
<Window: 168 > X:[ -15 , -14 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 169 \rangle X: [-14, -13] Y: [-9, -8]
Found Entropy: 0
\forall 170 > X:[-14, -13] Y:[-8, -7]
Found Entropy: 0
<Window: 171 > X:[ -14 , -13 ] Y:[ -7 , -6 ]
Found Entropy: 0
\langle \text{Window}: 172 \rangle X: [-14, -13] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 173 \rangle X: [-14, -13] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 174 > X:[-14, -13] Y:[-4, -3]
Found Entropy: 0
<Window: 175 > X:[ -14 , -13 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 176 > X:[ -14 , -13 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 177 > X:[ -14 , -13 ] Y:[ -1 , 0 ]
Found Entropy: 0
\forall 178 > X:[-14, -13] Y:[0, 1]
```

```
Found Entropy: 0
\forall 179 > X:[-14, -13] Y:[1, 2]
Found Entropy: 0
<Window: 180 > X:[ -14 , -13 ] Y:[ 2 , 3 ]
Found Entropy: 0
\langle \text{Window: } 181 \rangle \ \text{X:[} -14 \ , -13 \ ] \ \text{Y:[} 3 \ , 4 \ ]
Found Entropy: 0
\langle \text{Window: } 182 \rangle \ \text{X:[} -14 \ , -13 \ ] \ \text{Y:[} 4 \ , 5 \ ]
Found Entropy: 0
\langle \text{Window}: 183 \rangle X: [-13, -12] Y: [-9, -8]
Found Entropy: 0
\langle Window: 184 \rangle X:[-13, -12] Y:[-8, -7]
Found Entropy: 0
<Window: 185 > X:[ -13 , -12 ] Y:[ -7 , -6 ]
Found Entropy: 0
\langle \text{Window: } 186 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} -6 \ , -5 \ ]
Found Entropy: 0
\forall Window: 187 > X:[ -13 , -12 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 188 \rangle X: [-13, -12] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window: } 189 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} -3 \ , -2 \ ]
Found Entropy: 0
\langle \text{Window}: 190 \rangle X: [-13, -12] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 191 \rangle X: [-13, -12] Y: [-1, 0]
Found Entropy: 0
\langle \text{Window: } 192 \rangle X:[-13, -12] Y:[0, 1]
Found Entropy: 0
\forall 193 > X:[-13, -12] Y:[1, 2]
Found Entropy: 0
\langle \text{Window: } 194 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} 2 \ , 3 \ ]
Found Entropy: 0
<Window: 195 > X:[ -13 , -12 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window: } 196 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} 4 \ , 5 \ ]
Found Entropy: 0
\langle \text{Window: } 197 \rangle \ \text{X:[} -12 , -11 \ ] \ \text{Y:[} -9 , -8 \ ]
Found Entropy: 0
<Window: 198 > X:[ -12 , -11 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 199 > X:[ -12 , -11 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 200 > X:[ -12 , -11 ] Y:[ -6 , -5 ]
Found Entropy: 0
\forall X:[-12, -11] Y:[-5, -4]
Found Entropy: 0
\langle \text{Window}: 202 \rangle X: [-12, -11] Y: [-4, -3]
```

```
Found Entropy: 0
<Window: 203 > X:[ -12 , -11 ] Y:[ -3 , -2 ]
Found Entropy: 0
\forall X:[-12,-11] Y:[-2,-1]
Found Entropy: 0
<Window: 205 > X:[-12, -11] Y:[-1, 0]
Found Entropy: 0
\langle \text{Window: } 206 \rangle \ X:[-12, -11] \ Y:[0, 1]
Found Entropy: 0
<Window: 207 > X:[ -12 , -11 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 208 > X:[ -12 , -11 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 209 > X:[ -12 , -11 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window}: 210 \rangle X: [-12, -11] Y: [4, 5]
Found Entropy: 0
\langle Window: 211 \rangle X:[-11, -10] Y:[-9, -8]
Found Entropy: 0
<Window: 212 > X:[ -11 , -10 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window}: 213 \rangle X: [-11, -10] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 214 \rangle X: [-11, -10] Y: [-6, -5]
Found Entropy: 0
\{Window: 215 > X:[-11, -10] Y:[-5, -4]
Found Entropy: 0
\langle \text{Window}: 216 \rangle X: [-11, -10] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 217 > X:[-11, -10] Y:[-3, -2]
Found Entropy: 0
\langle \text{Window}: 218 \rangle X: [-11, -10] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 219 \rangle X: [-11, -10] Y: [-1, 0]
Found Entropy: 0
<Window: 220 > X:[ -11 , -10 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 221 > X:[ -11 , -10 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 222 > X:[ -11 , -10 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 223 > X:[ -11 , -10 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window}: 224 \rangle X: [-11, -10] Y: [4, 5]
Found Entropy: 0
\langle \text{Window: } 225 \rangle \text{ X:} [-10, -9] \text{ Y:} [-9, -8]
Found Entropy: 0
\langle \text{Window}: 226 \rangle X:[-10, -9] Y:[-8, -7]
```

```
Found Entropy: 0
\forall X: [-10, -9] \ Y: [-7, -6]
Found Entropy: 0
<Window: 228 > X:[ -10 , -9 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 229 \rangle X:[-10, -9] Y:[-5, -4]
Found Entropy: 0
\langle \text{Window: } 230 \rangle \text{ X:[} -10 , -9 ] \text{ Y:[} -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 231 \rangle X: [-10, -9] Y: [-3, -2]
Found Entropy: 0
<Window: 232 > X:[ -10 , -9 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 233 > X:[ -10 , -9 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 234 > X:[ -10 , -9 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 235 > X:[ -10 , -9 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 236 > X:[ -10 , -9 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 237 > X:[ -10 , -9 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 238 > X:[ -10 , -9 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 239 \rangle X: [-9, -8] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window: } 240 \rangle \text{ X:[} -9 , -8 ] \text{ Y:[} -8 , -7 ]
Found Entropy: 0
<Window: 241 > X:[ -9 , -8 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 242 > X:[ -9 , -8 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 243 > X:[ -9 , -8 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 244 \rangle X: [-9, -8] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window: } 245 \rangle \ \text{X:[} -9 \ , -8 \ ] \ \text{Y:[} -3 \ , -2 \ ]
Found Entropy: 0
\langle \text{Window}: 246 \rangle X: [-9, -8] Y: [-2, -1]
Found Entropy: 0
<Window: 247 > X:[ -9 , -8 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 248 > X:[ -9 , -8 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 249 \rangle X:[-9, -8] Y:[1, 2]
Found Entropy: 0
\langle \text{Window}: 250 \rangle X: [-9, -8] Y: [2, 3]
```

```
Found Entropy: 0
<Window: 251 > X:[ -9 , -8 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 252 > X:[ -9 , -8 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 253 \rangle X: [-8, -7] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 254 \rangle X: [-8, -7] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 255 \rangle X: [-8, -7] Y: [-7, -6]
Found Entropy: 0
<Window: 256 > X:[ -8 , -7 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 257 > X:[-8, -7] Y:[-5, -4]
Found Entropy: 0
\langle \text{Window}: 258 \rangle X: [-8, -7] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 259 \rangle X: [-8, -7] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 260 \rangle X: [-8, -7] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window: 261} \rangle \text{ X:[-8,-7] Y:[-1,0]}
Found Entropy: 0
\langle \text{Window}: 262 \rangle X: [-8, -7] Y: [0, 1]
Found Entropy: 0
\langle Window: 263 \rangle X: [-8, -7] Y: [1, 2]
Found Entropy: 0
<Window: 264 > X:[ -8 , -7 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 265 > X:[ -8 , -7 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 266 > X:[ -8 , -7 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 267 > X:[-7, -6] Y:[-9, -8]
Found Entropy: 0
\langle \text{Window: } 268 \rangle \ \text{X:[} -7 \ , -6 \ ] \ \text{Y:[} -8 \ , -7 \ ]
Found Entropy: 0
\langle \text{Window: } 269 \rangle \ X:[-7,-6] \ Y:[-7,-6]
Found Entropy: 0
\langle \text{Window: } 270 \rangle \text{ X:[} -7 , -6 ] \text{ Y:[} -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 271 \rangle X: [-7, -6] Y: [-5, -4]
Found Entropy: 0
\forall X: [-7, -6] \ Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 273 \rangle X: [-7, -6] Y: [-3, -2]
Found Entropy: 0
\forall x = 1
```

```
Found Entropy: 0
\langle \text{Window}: 275 \rangle X: [-7, -6] Y: [-1, 0]
Found Entropy: 0
<Window: 276 > X:[-7, -6] Y:[0, 1]
Found Entropy: 0
\langle \text{Window}: 277 \rangle X:[-7,-6] Y:[1,2]
Found Entropy: 0
\langle \text{Window}: 278 \rangle X:[-7,-6] Y:[2,3]
Found Entropy: 0
\langle \text{Window}: 279 \rangle X: [-7, -6] Y: [3, 4]
Found Entropy: 0
<Window: 280 > X:[ -7 , -6 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 281 \rangle X: [ -6 , -5 ] Y: [ -9 , -8 ]
Found Entropy: 0
\langle \text{Window: } 282 \rangle X: [-6, -5] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window: 283} \rangle X: [-6, -5] Y: [-7, -6]
Found Entropy: 0
<Window: 284 > X:[ -6 , -5 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 285 \rangle \ \text{X:[} -6 \ , -5 \ ] \ \text{Y:[} -5 \ , -4 \ ]
Found Entropy: 0
\langle \text{Window}: 286 \rangle X: [-6, -5] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 287 \rangle X: [-6, -5] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window: 288} \rangle X: [-6, -5] Y: [-2, -1]
Found Entropy: 0
<Window: 289 > X:[ -6 , -5 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 290 > X:[ -6 , -5 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 291 > X:[ -6 , -5 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window}: 292 \rangle X: [-6, -5] Y: [2, 3]
Found Entropy: 0
<Window: 293 > X:[ -6 , -5 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window}: 294 \rangle X: [-6, -5] Y: [4, 5]
Found Entropy: 0
\langle \text{Window: } 295 \rangle X: [-5, -4] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 296 \rangle X: [-5, -4] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window: } 297 \rangle X:[-5, -4] Y:[-7, -6]
Found Entropy: 0
\langle \text{Window: } 298 \rangle \ \text{X:[} -5 , -4 \ ] \ \text{Y:[} -6 , -5 \ ]
```

```
Found Entropy: 0
<Window: 299 > X:[ -5 , -4 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 300 > X:[ -5 , -4 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 301 > X:[ -5 , -4 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window: } 302 \rangle \text{ X:} [ -5 , -4 ] \text{ Y:} [ -2 , -1 ]
Found Entropy: 0
<Window: 303 > X:[ -5 , -4 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 304 > X:[ -5 , -4 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 305 > X:[ -5 , -4 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 306 > X:[ -5 , -4 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 307 > X:[ -5 , -4 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window}: 308 \rangle X: [-5, -4] Y: [4, 5]
Found Entropy: 0
\langle \text{Window: } 309 \rangle \ \text{X:[} -4 , -3 \ ] \ \text{Y:[} -9 , -8 \ ]
Found Entropy: 0
\langle \text{Window}: 310 \rangle X: [-4, -3] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 311 \rangle X: [-4, -3] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 312 \rangle X: [-4, -3] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 313 \rangle X: [-4, -3] Y: [-5, -4]
Found Entropy: 0
<Window: 314 > X:[ -4 , -3 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 315 \rangle X: [-4, -3] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 316 \rangle X: [-4, -3] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window: } 317 \rangle \text{ X: [ } -4 \text{ , } -3 \text{ ] } \text{ Y: [ } -1 \text{ , } 0 \text{ ]}
Found Entropy: 0
<Window: 318 > X:[ -4 , -3 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 319 \rangle X: [-4, -3] Y: [1, 2]
Found Entropy: 0
\langle \text{Window}: 320 \rangle X: [-4, -3] Y: [2, 3]
Found Entropy: 0
\langle \text{Window}: 321 \rangle X: [-4, -3] Y: [3, 4]
Found Entropy: 0
\langle \text{Window}: 322 \rangle X: [-4, -3] Y: [4, 5]
```

```
Found Entropy: 0
<Window: 323 > X:[ -3 , -2 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 324 > X:[ -3 , -2 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window}: 325 \rangle X: [-3, -2] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 326 \rangle X: [-3, -2] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 327 \rangle X: [-3, -2] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 328 \rangle X: [-3, -2] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 329 \rangle X: [-3, -2] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 330 \rangle X: [-3, -2] Y: [-2, -1]
Found Entropy: 0
<Window: 331 > X:[ -3 , -2 ] Y:[ -1 , 0 ]
Found Entropy: 0
\langle \text{Window}: 332 \rangle X: [-3, -2] Y: [0, 1]
Found Entropy: 0
\langle \text{Window}: 333 \rangle X: [-3, -2] Y: [1, 2]
Found Entropy: 0
\langle \text{Window}: 334 \rangle X: [-3, -2] Y: [2, 3]
Found Entropy: 0
\langle Window: 335 \rangle X: [-3, -2] Y: [3, 4]
Found Entropy: 0
<Window: 336 > X:[ -3 , -2 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 337 > X:[ -2 , -1 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window: } 338 \rangle \ \text{X:[} -2 , -1 \ ] \ \text{Y:[} -8 , -7 \ ]
Found Entropy: 0
\forall X: [-2, -1] \ Y: [-7, -6]
Found Entropy: 0
\langle \text{Window: } 340 \rangle \ \text{X:[} -2 \ , -1 \ ] \ \text{Y:[} -6 \ , -5 \ ]
Found Entropy: 0
\langle \text{Window}: 341 > X: [-2, -1] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 342 \rangle X: [-2, -1] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 343 \rangle X: [-2, -1] Y: [-3, -2]
Found Entropy: 0
\{Window: 344 > X:[-2,-1] Y:[-2,-1]
Found Entropy: 0
<Window: 345 > X:[-2, -1] Y:[-1, 0]
Found Entropy: 0
<Window: 346 > X:[ -2 , -1 ] Y:[ 0 , 1 ]
```

```
Found Entropy: 0
\langle \text{Window}: 347 \rangle X:[-2,-1] Y:[1,2]
Found Entropy: 0
<Window: 348 > X:[ -2 , -1 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 349 > X:[ -2 , -1 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window}: 350 \rangle X: [-2, -1] Y: [4, 5]
Found Entropy: 0
\langle \text{Window}: 351 \rangle X: [-1, 0] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 352 \rangle X:[-1, 0] Y:[-8, -7]
Found Entropy: 0
<Window: 353 > X:[ -1 , 0 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 354 > X:[ -1 , 0 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 355 > X:[-1, 0] Y:[-5, -4]
Found Entropy: 0
\langle \text{Window}: 356 \rangle X: [-1, 0] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window: } 357 \rangle \text{ X:} [-1, 0] \text{ Y:} [-3, -2]
Found Entropy: 0
\langle \text{Window}: 358 \rangle X: [-1, 0] Y: [-2, -1]
Found Entropy: 0
\langle Window: 359 \rangle X: [-1, 0] Y: [-1, 0]
Found Entropy: 0
<Window: 360 > X:[ -1 , 0 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 361 > X:[ -1 , 0 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 362 > X:[ -1 , 0 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 363 > X:[-1, 0] Y:[3, 4]
Found Entropy: 0
<Window: 364 > X:[ -1 , 0 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 365 > X:[ 0 , 1 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 366 > X:[ 0 , 1 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 367 > X:[ 0 , 1 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 368 > X:[ 0 , 1 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 369 > X:[ 0 , 1 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 370 > X:[ 0 , 1 ] Y:[ -4 , -3 ]
```

```
Found Entropy: 0
<Window: 371 > X:[ 0 , 1 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 372 > X:[0, 1] Y:[-2, -1]
Found Entropy: 0
<Window: 373 > X:[ 0 , 1 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 374 > X:[ 0 , 1 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 375 > X:[ 0 , 1 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 376 > X:[ 0 , 1 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 377 > X:[ 0 , 1 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 378 > X:[ 0 , 1 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 379 \rangle X: [1, 2] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 380 \rangle X: [1, 2] Y: [-8, -7]
Found Entropy: 0
<Window: 381 > X:[1,2] Y:[-7,-6]
Found Entropy: 0
<Window: 382 > X:[ 1 , 2 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle Window: 383 \rangle X: [1, 2] Y: [-5, -4]
Found Entropy: 0
<Window: 384 > X:[1,2] Y:[-4,-3]
Found Entropy: 0
<Window: 385 > X:[ 1 , 2 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 386 > X:[ 1 , 2 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 387 > X:[ 1 , 2 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 388 > X:[ 1 , 2 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 389 > X:[ 1 , 2 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 390 > X:[ 1 , 2 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 391 > X:[ 1 , 2 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window}: 392 \rangle X:[1,2] Y:[4,5]
Found Entropy: 0
\langle \text{Window}: 393 \rangle X: [2, 3] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 394 \rangle X: [2, 3] Y: [-8, -7]
```

```
Found Entropy: 0
<Window: 395 > X:[ 2 , 3 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 396 > X:[ 2 , 3 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 397 > X:[ 2 , 3 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 398 \rangle X: [2, 3] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 399 \rangle X: [2, 3] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 400 \rangle X: [2, 3] Y: [-2, -1]
Found Entropy: 0
<Window: 401 > X:[ 2 , 3 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 402 > X:[2,3] Y:[0,1]
Found Entropy: 0
<Window: 403 > X:[ 2 , 3 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 404 > X:[ 2 , 3 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 405 > X:[ 2 , 3 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 406 > X:[ 2 , 3 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 407 > X:[3, 4] Y:[-9, -8]
Found Entropy: 0
<Window: 408 > X:[3,4] Y:[-8,-7]
Found Entropy: 0
<Window: 409 > X:[3,4] Y:[-7,-6]
Found Entropy: 0
<Window: 410 > X:[ 3 , 4 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 411 > X:[ 3 , 4 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 412 > X:[ 3 , 4 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 413 > X:[3, 4] Y:[-3, -2]
Found Entropy: 0
\langle \text{Window}: 414 \rangle X:[3,4] Y:[-2,-1]
Found Entropy: 0
<Window: 415 > X:[ 3 , 4 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 416 > X:[ 3 , 4 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 417 > X:[3, 4] Y:[1, 2]
Found Entropy: 0
<Window: 418 > X:[ 3 , 4 ] Y:[ 2 , 3 ]
```

```
Found Entropy: 0
<Window: 419 > X:[ 3 , 4 ] Y:[ 3 , 4 ]
Found Entropy: 0
\{\text{Window: } 420 > X:[3,4] Y:[4,5]
Found Entropy: 0
\{\text{Window: } 421 > X: [4, 5] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 422 \rangle X: [4, 5] Y: [-8, -7]
Found Entropy: 0
<Window: 423 > X:[ 4 , 5 ] Y:[ -7 , -6 ]
Found Entropy: 0
\{Window: 424 > X: [4, 5] Y: [-6, -5]
Found Entropy: 0
<Window: 425 > X:[ 4 , 5 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 426 > X:[ 4 , 5 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 427 \rangle X: [4, 5] Y: [-3, -2]
Found Entropy: 0
\langle Window: 428 \rangle X: [4, 5] Y: [-2, -1]
Found Entropy: 0
<Window: 429 > X:[ 4 , 5 ] Y:[ -1 , 0 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 430 > X:[ 4 , 5 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 431 > X:[4,5] Y:[1,2]
Found Entropy: 0
<Window: 432 > X:[ 4 , 5 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 433 > X:[4,5] Y:[3,4]
Found Entropy: 0
<Window: 434 > X:[4,5] Y:[4,5]
Found Entropy: 0
<Window: 435 > X:[5,6] Y:[-9,-8]
Found Entropy: 0
<Window: 436 > X:[ 5 , 6 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 437 > X:[5,6] Y:[-7,-6]
Found Entropy: 0
<Window: 438 > X:[5,6] Y:[-6,-5]
Found Entropy: 0
<Window: 439 > X:[5,6] Y:[-5,-4]
Found Entropy: 0
<Window: 440 > X:[5,6] Y:[-4,-3]
Found Entropy: 0
<Window: 441 > X:[ 5 , 6 ] Y:[ -3 , -2 ]
Found Entropy: 0
```

```
\langle \text{Window}: 442 \rangle X: [5, 6] Y: [-2, -1]
Found Entropy: 0
<Window: 443 > X:[5,6] Y:[-1,0]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.6365141682948128
<Window: 444 > X:[ 5 , 6 ] Y:[ 0 , 1 ]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 445 > X:[ 5 , 6 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 446 > X:[5,6] Y:[2,3]
Found Entropy: 0
<Window: 447 > X:[5,6] Y:[3,4]
Found Entropy: 0
<Window: 448 > X:[5,6] Y:[4,5]
Found Entropy: 0
<Window: 449 > X:[6,7] Y:[-9,-8]
Found Entropy: 0
<Window: 450 > X:[6,7] Y:[-8,-7]
Found Entropy: 0
\{\text{Window: } 451 > X: [6, 7] Y: [-7, -6]
Found Entropy: 0
\{\text{Window}: 452 > X: [6, 7] Y: [-6, -5]
Found Entropy: 0
<Window: 453 > X:[ 6 , 7 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 454 > X:[6,7] Y:[-4,-3]
Found Entropy: 0
<Window: 455 > X:[ 6 , 7 ] Y:[ -3 , -2 ]
Found Entropy: 0
\{\text{Window: } 456 > X: [6, 7] Y: [-2, -1]
Found Entropy: 0
<Window: 457 > X:[6,7] Y:[-1,0]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 1.0986122886681096
<Window: 458 > X:[6, 7] Y:[0, 1]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 459 > X:[6,7] Y:[1,2]
Found a sample of class: 1
Found Entropy: 0.0
```

```
<Window: 460 > X:[6,7] Y:[2,3]
Found Entropy: 0
<Window: 461 > X:[ 6 , 7 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 462 > X:[ 6 , 7 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 463 > X:[7,8] Y:[-9,-8]
Found Entropy: 0
\{\text{Window: } 464 > X:[7,8] Y:[-8,-7]
Found Entropy: 0
\{\text{Window}: 465 > X: [7, 8] Y: [-7, -6]
Found Entropy: 0
<Window: 466 > X:[ 7 , 8 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 467 > X:[ 7 , 8 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 468 > X:[ 7 , 8 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 469 > X:[7,8] Y:[-3,-2]
Found Entropy: 0
<Window: 470 > X:[7,8] Y:[-2,-1]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 471 > X:[7,8] Y:[-1,0]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 472 > X:[7,8] Y:[0,1]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 473 > X:[7,8] Y:[1,2]
Found Entropy: 0
<Window: 474 > X:[7,8] Y:[2,3]
Found Entropy: 0
<Window: 475 > X:[ 7 , 8 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 476 > X:[ 7 , 8 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 477 > X:[8,9] Y:[-9,-8]
Found Entropy: 0
<Window: 478 > X:[8,9] Y:[-8,-7]
Found Entropy: 0
<Window: 479 > X:[8,9] Y:[-7,-6]
Found Entropy: 0
<Window: 480 > X:[8,9] Y:[-6,-5]
```

```
Found Entropy: 0
<Window: 481 > X:[8, 9] Y:[-5, -4]
Found Entropy: 0
\{\text{Window: } 482 > X:[8,9] Y:[-4,-3]
Found Entropy: 0
<Window: 483 > X:[8, 9] Y:[-3, -2]
Found Entropy: 0
<Window: 484 > X:[8,9] Y:[-2,-1]
Found Entropy: 0
<Window: 485 > X:[8, 9] Y:[-1, 0]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.6365141682948128
<Window: 486 > X:[8, 9] Y:[0, 1]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 487 > X:[8, 9] Y:[1, 2]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 488 > X:[ 8 , 9 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 489 > X:[8, 9] Y:[3, 4]
Found Entropy: 0
<Window: 490 > X:[ 8 , 9 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 491 > X:[ 9 , 10 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 492 > X:[ 9 , 10 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 493 > X:[ 9 , 10 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 494 > X:[9, 10] Y:[-6, -5]
Found Entropy: 0
<Window: 495 > X:[ 9 , 10 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 496 > X:[ 9 , 10 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 497 > X:[ 9 , 10 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 498 > X:[ 9 , 10 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 499 > X:[ 9 , 10 ] Y:[ -1 , 0 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 500 > X:[ 9 , 10 ] Y:[ 0 , 1 ]
Found a sample of class: 1
```

```
Found Entropy: 0.0
<Window: 501 > X:[ 9 , 10 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 502 > X:[9, 10] Y:[2, 3]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 503 > X:[ 9 , 10 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 504 > X:[ 9 , 10 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 505 > X:[ 10 , 11 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 506 > X:[ 10 , 11 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 507 > X:[ 10 , 11 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 508 > X:[ 10 , 11 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 509 > X:[ 10 , 11 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window: 510} \rangle \text{ X:[ 10 , 11 ] Y:[ -4 , -3 ]}
Found Entropy: 0
<Window: 511 > X:[ 10 , 11 ] Y:[ -3 , -2 ]
Found Entropy: 0
\{Window: 512 > X:[10, 11] Y:[-2, -1]
Found Entropy: 0
<Window: 513 > X:[ 10 , 11 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 514 > X:[10, 11] Y:[0, 1]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 515 > X:[ 10 , 11 ] Y:[ 1 , 2 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 516 > X:[ 10 , 11 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 517 > X:[10, 11] Y:[3, 4]
Found Entropy: 0
<Window: 518 > X:[ 10 , 11 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 519 > X:[ 11 , 12 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 520 > X:[ 11 , 12 ] Y:[ -8 , -7 ]
Found Entropy: 0
```

```
\forall X:[11, 12] Y:[-7, -6]
Found Entropy: 0
<Window: 522 > X:[ 11 , 12 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 523 \rangle X: [11, 12] Y: [-5, -4]
Found Entropy: 0
\{Window: 524 > X:[11, 12] Y:[-4, -3]
Found Entropy: 0
\langle \text{Window}: 525 \rangle X: [11, 12] Y: [-3, -2]
Found Entropy: 0
<Window: 526 > X:[ 11 , 12 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 527 > X:[11, 12] Y:[-1, 0]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 528 > X:[ 11 , 12 ] Y:[ 0 , 1 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 529 > X:[ 11 , 12 ] Y:[ 1 , 2 ]
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.6931471805599453
<Window: 530 > X:[ 11 , 12 ] Y:[ 2 , 3 ]
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 531 > X:[ 11 , 12 ] Y:[ 3 , 4 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 532 > X:[ 11 , 12 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: 533} \rangle X: [12, 13] Y: [-9, -8]
Found Entropy: 0
<Window: 534 > X:[ 12 , 13 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window}: 535 \rangle X: [12, 13] Y: [-7, -6]
Found Entropy: 0
<Window: 536 > X:[ 12 , 13 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 537 > X:[ 12 , 13 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window: 538} \rangle \text{ X:[ 12 , 13 ] Y:[ -4 , -3 ]}
Found Entropy: 0
\langle \text{Window: 539} \rangle X: [12, 13] Y: [-3, -2]
Found Entropy: 0
<Window: 540 > X:[ 12 , 13 ] Y:[ -2 , -1 ]
Found Entropy: 0
```

```
<Window: 541 > X:[12, 13] Y:[-1, 0]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 542 > X:[ 12 , 13 ] Y:[ 0 , 1 ]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 1.0986122886681096
<Window: 543 > X:[12, 13] Y:[1, 2]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 544 > X:[ 12 , 13 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 545 > X:[ 12 , 13 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 1.0397207708399179
<Window: 546 > X:[ 12 , 13 ] Y:[ 4 , 5 ]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
\langle \text{Window: 547} \rangle X: [13, 14] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window: 548} \rangle \text{ X:[ 13 , 14 ] Y:[ -8 , -7 ]}
Found Entropy: 0
\langle \text{Window: 549} \rangle X: [13, 14] Y: [-7, -6]
Found Entropy: 0
<Window: 550 > X:[ 13 , 14 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle Window: 551 \rangle X: [13, 14] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 552 \rangle X: [13, 14] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 553 \rangle X: [13, 14] Y: [-3, -2]
Found Entropy: 0
<Window: 554 > X:[ 13 , 14 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 555 > X:[ 13 , 14 ] Y:[ -1 , 0 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 556 > X:[ 13 , 14 ] Y:[ 0 , 1 ]
Found a sample of class: 2
Found a sample of class: 1
```

```
Found Entropy: 0.6931471805599453
<Window: 557 > X:[ 13 , 14 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 558 > X:[ 13 , 14 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 559 > X:[ 13 , 14 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 560 > X:[ 13 , 14 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 561 > X:[ 14 , 15 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 562 \rangle X: [14, 15] Y: [-8, -7]
Found Entropy: 0
<Window: 563 > X:[ 14 , 15 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 564 > X:[14, 15] Y:[-6, -5]
Found Entropy: 0
<Window: 565 > X:[ 14 , 15 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 566 > X:[ 14 , 15 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 567 \rangle X: [14, 15] Y: [-3, -2]
Found Entropy: 0
<Window: 568 > X:[ 14 , 15 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 569 > X:[ 14 , 15 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 570 > X:[ 14 , 15 ] Y:[ 0 , 1 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 571 > X:[ 14 , 15 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 572 > X:[ 14 , 15 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 573 > X:[ 14 , 15 ] Y:[ 3 , 4 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 574 > X:[ 14 , 15 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: 575} \rangle X: [15, 16] Y: [-9, -8]
Found Entropy: 0
<Window: 576 > X:[ 15 , 16 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 577 > X:[ 15 , 16 ] Y:[ -7 , -6 ]
Found Entropy: 0
```

```
<Window: 578 > X:[ 15 , 16 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: 579} \rangle X: [15, 16] Y: [-5, -4]
Found Entropy: 0
<Window: 580 > X:[ 15 , 16 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 581 > X:[ 15 , 16 ] Y:[ -3 , -2 ]
Found Entropy: 0
\{Window: 582 > X: [15, 16] Y: [-2, -1] 
Found Entropy: 0
<Window: 583 > X:[ 15 , 16 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 584 > X:[ 15 , 16 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 585 > X:[ 15 , 16 ] Y:[ 1 , 2 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 586 > X:[ 15 , 16 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 587 > X:[ 15 , 16 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 588 > X:[ 15 , 16 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 589 > X:[ 16 , 17 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 590 > X:[ 16 , 17 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 591 > X:[ 16 , 17 ] Y:[ -7 , -6 ]
Found Entropy: 0
\forall X: [16, 17] Y: [-6, -5]
Found Entropy: 0
<Window: 593 > X:[ 16 , 17 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window: } 594 \rangle \text{ X:} [ 16 , 17 ] \text{ Y:} [ -4 , -3 ]
Found Entropy: 0
<Window: 595 > X:[ 16 , 17 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 596 > X:[ 16 , 17 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 597 > X:[ 16 , 17 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 598 > X:[ 16 , 17 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 599 > X:[ 16 , 17 ] Y:[ 1 , 2 ]
```

```
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 600 > X:[ 16 , 17 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 601 > X:[ 16 , 17 ] Y:[ 3 , 4 ]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 602 > X:[ 16 , 17 ] Y:[ 4 , 5 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 603 > X:[ 17 , 18 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 604 > X:[ 17 , 18 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 605 > X:[ 17 , 18 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 606 > X:[ 17 , 18 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 607 \rangle \text{ X:} [17, 18] \text{ Y:} [-5, -4]
Found Entropy: 0
\langle \text{Window: } 608 \rangle \ \text{X:} [ 17 , 18 ] \ \text{Y:} [ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 609 \rangle \ \text{X:[} 17 , 18 \ ] \ \text{Y:[} -3 , -2 \ ]
Found Entropy: 0
<Window: 610 > X:[ 17 , 18 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 611 > X:[ 17 , 18 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 612 > X:[ 17 , 18 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 613 > X:[ 17 , 18 ] Y:[ 1 , 2 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
\{\text{Window: 614} > \text{X:[17,18]} \text{Y:[2,3]}
Found a sample of class: 2
Found Entropy: 0.0
<Window: 615 > X:[ 17 , 18 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 616 > X:[ 17 , 18 ] Y:[ 4 , 5 ]
```

```
Found Entropy: 0
\langle \text{Window: } 617 \rangle \text{ X:} [ 18 , 19 ] \text{ Y:} [ -9 , -8 ]
Found Entropy: 0
<Window: 618 > X:[ 18 , 19 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 619 > X:[ 18 , 19 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 620 > X:[ 18 , 19 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 621 > X:[ 18 , 19 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window: } 622 \rangle \text{ X:} [ 18 , 19 ] \text{ Y:} [ -4 , -3 ]
Found Entropy: 0
<Window: 623 > X:[ 18 , 19 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window: } 624 \rangle \text{ X:} [ 18 , 19 ] \text{ Y:} [ -2 , -1 ]
Found Entropy: 0
<Window: 625 > X:[ 18 , 19 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 626 > X:[ 18 , 19 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 627 > X:[ 18 , 19 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 628 > X:[ 18 , 19 ] Y:[ 2 , 3 ]
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 629 > X:[ 18 , 19 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.6365141682948128
<Window: 630 > X:[ 18 , 19 ] Y:[ 4 , 5 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 631 > X:[ 19 , 20 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 632 > X:[ 19 , 20 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 633 > X:[ 19 , 20 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 634 > X:[ 19 , 20 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 635 > X:[ 19 , 20 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 636 > X:[ 19 , 20 ] Y:[ -4 , -3 ]
Found Entropy: 0
```

```
\langle \text{Window: } 637 \rangle \text{ X:} [ 19 , 20 ] \text{ Y:} [ -3 , -2 ]
Found Entropy: 0
\langle \text{Window: 638} \rangle \text{ X:} [ 19 , 20 ] \text{ Y:} [ -2 , -1 ]
Found Entropy: 0
<Window: 639 > X:[ 19 , 20 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 640 > X:[ 19 , 20 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 641 > X:[ 19 , 20 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 642 > X:[ 19 , 20 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 643 > X:[ 19 , 20 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 644 > X:[ 19 , 20 ] Y:[ 4 , 5 ]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.9502705392332347
\langle \text{Window: } 645 \rangle \text{ X:} [20, 21] \text{ Y:} [-9, -8]
Found Entropy: 0
\langle \text{Window: 646} \rangle \text{ X:[ 20, 21] Y:[ -8, -7]}
Found Entropy: 0
<Window: 647 > X:[ 20 , 21 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 648 > X:[ 20 , 21 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 649 > X:[ 20 , 21 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 650 > X:[ 20 , 21 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 651 \rangle X: [20, 21] Y: [-3, -2]
Found Entropy: 0
\{\text{Window: }652 > X:[20,21] Y:[-2,-1]
Found Entropy: 0
<Window: 653 > X:[ 20 , 21 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 654 > X:[20, 21] Y:[0, 1]
Found Entropy: 0
<Window: 655 > X:[ 20 , 21 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 656 > X:[ 20 , 21 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 657 > X:[ 20 , 21 ] Y:[ 3 , 4 ]
Found a sample of class: 2
```

```
Found a sample of class: 2
Found Entropy: 0.0
<Window: 658 > X:[ 20 , 21 ] Y:[ 4 , 5 ]
Found a sample of class: 2
Found Entropy: 0.0
Total Count: 658
Expected Count: 658
OKAY: True
----Done--- 13.853681503172105
Done!
-26 21 -9 5
You Can use this matrix now.
X_{min} = -26
X_max = 21
Y_{min} = -9
Y_{max} = 5
And the Matrix Shape: 47 * 14
\langle \text{Window: 1} \rangle X:[-26, -25] Y:[-9, -8]
Found Entropy: 0
\{\text{Window: 2 > X:[-26,-25] Y:[-8,-7]}
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 0.6931471805599453
\langle \text{Window}: 3 \rangle X: [-26, -25] Y: [-7, -6]
Found a sample of class: 0
Found Entropy: 0.0
\{\text{Window: 4 > X:[-26,-25] Y:[-6,-5]}
Found Entropy: 0
\langle \text{Window}: 5 \rangle X: [-26, -25] Y: [-5, -4]
Found Entropy: 0
<Window: 6 > X:[ -26 , -25 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: 7 > X:[-26,-25] Y:[-3,-2]}
Found Entropy: 0
\langle \text{Window: 8 > X:[-26,-25] Y:[-2,-1]}
Found Entropy: 0
\langle \text{Window: 9 > X:[-26,-25] Y:[-1,0]}
Found Entropy: 0
<Window: 10 > X:[ -26 , -25 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 11 \rangle X: [-26, -25] Y: [1, 2]
Found Entropy: 0
\langle \text{Window}: 12 \rangle X: [-26, -25] Y: [2, 3]
Found Entropy: 0
<Window: 13 > X:[ -26 , -25 ] Y:[ 3 , 4 ]
```

```
Found Entropy: 0
\langle \text{Window: } 14 > X:[-26, -25] Y:[4, 5]
Found Entropy: 0
\{Window: 15 > X: [ -25 , -24 ] Y: [ -9 , -8 ]
Found Entropy: 0
\forall Window: 16 > X:[ -25 , -24 ] Y:[ -8 , -7 ]
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 0.6931471805599453
\langle \text{Window}: 17 > X:[-25, -24] Y:[-7, -6]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.5623351446188083
\langle \text{Window}: 18 \rangle X: [-25, -24] Y: [-6, -5]
Found a sample of class: 0
Found Entropy: 0.0
\forall 19 > X:[-25, -24] Y:[-5, -4]
Found Entropy: 0
\langle \text{Window}: 20 \rangle X: [-25, -24] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 21 \rangle X: [-25, -24] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 22 \rangle X: [-25, -24] Y: [-2, -1]
Found Entropy: 0
<Window: 23 > X:[ -25 , -24 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 24 > X:[ -25 , -24 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 25 \rangle X: [-25, -24] Y: [1, 2]
Found Entropy: 0
<Window: 26 > X:[ -25 , -24 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 27 > X:[ -25 , -24 ] Y:[ 3 , 4 ]
Found Entropy: 0
\{\text{Window: 28} > \text{X:[-25,-24]} \text{Y:[4,5]}
Found Entropy: 0
\{Window: 29 \} X: [ -24 , -23 ] Y: [ -9 , -8 ]
Found Entropy: 0
\forall X: [-24, -23] Y: [-8, -7]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\forall X: [-24, -23] Y: [-7, -6]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
```

```
Found a sample of class: 0
Found Entropy: 0.5623351446188083
\langle \text{Window}: 32 \rangle X: [-24, -23] Y: [-6, -5]
Found a sample of class: 0
Found Entropy: 0.0
\forall Window: 33 > X:[ -24 , -23 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 34 \rangle X: [-24, -23] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 35 \rangle X: [-24, -23] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 36 \rangle X: [-24, -23] Y: [-2, -1]
Found Entropy: 0
<Window: 37 > X:[-24, -23] Y:[-1, 0]
Found Entropy: 0
<Window: 38 > X:[ -24 , -23 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window: } 39 \rangle \text{ X:[} -24 , -23 ] \text{ Y:[} 1 , 2 ]
Found Entropy: 0
\{\text{Window: } 40 > X: [-24, -23] Y: [2, 3]
Found Entropy: 0
<Window: 41 > X:[ -24 , -23 ] Y:[ 3 , 4 ]
Found Entropy: 0
\{\text{Window: } 42 > X: [-24, -23] Y: [4, 5]
Found Entropy: 0
\{\text{Window: } 43 > X: [-23, -22] \ Y: [-9, -8] \}
Found Entropy: 0
\{\text{Window: } 44 > \text{X:} [-23, -22] \text{ Y:} [-8, -7] \}
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 45 \rangle X: [-23, -22] Y: [-7, -6]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 1.0397207708399179
\langle \text{Window}: 46 \rangle X: [-23, -22] Y: [-6, -5]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window: } 47 \rangle \text{ X: [ } -23 \text{ , } -22 \text{ ] } \text{ Y: [ } -5 \text{ , } -4 \text{ ]}
Found Entropy: 0
\langle \text{Window}: 48 \rangle X: [-23, -22] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 49 \rangle X: [-23, -22] Y: [-3, -2]
Found Entropy: 0
\forall X: [-23, -22] Y: [-2, -1]
Found Entropy: 0
```

```
\{\text{Window: 51} > \text{X:[-23,-22]} \text{Y:[-1,0]}
Found Entropy: 0
\langle \text{Window: 52} \rangle X: [-23, -22] Y: [0, 1]
Found Entropy: 0
<Window: 53 > X:[ -23 , -22 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window}: 54 \rangle X: [-23, -22] Y: [2, 3]
Found Entropy: 0
\{\text{Window: } 55 > X: [-23, -22] Y: [3, 4]
Found Entropy: 0
\langle \text{Window}: 56 \rangle X: [-23, -22] Y: [4, 5]
Found Entropy: 0
\langle \text{Window}: 57 \rangle X: [-22, -21] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window: 58} \rangle \text{ X:} [-22, -21] \text{ Y:} [-8, -7]
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 0.6931471805599453
\{Window: 59 \} X: [ -22 , -21 ] Y: [ -7 , -6 ]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window: } 60 \rangle \text{ X: } [-22, -21] \text{ Y: } [-6, -5]
Found Entropy: 0
\langle \text{Window: } 61 \rangle \ \text{X:} [ -22 , -21 ] \ \text{Y:} [ -5 , -4 ]
Found Entropy: 0
\{\text{Window: } 62 > \text{X:} [-22, -21] \text{ Y:} [-4, -3] \}
Found Entropy: 0
\langle \text{Window}: 63 \rangle X: [-22, -21] Y: [-3, -2]
Found Entropy: 0
\{\text{Window: } 64 > \text{X:} [-22, -21] \text{ Y:} [-2, -1] \}
Found Entropy: 0
<Window: 65 > X:[ -22 , -21 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 66 > X:[ -22 , -21 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 67 > X:[ -22 , -21 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 68 > X:[ -22 , -21 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 69 > X:[ -22 , -21 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window}: 70 \rangle X: [-22, -21] Y: [4, 5]
Found Entropy: 0
<Window: 71 > X:[ -21 , -20 ] Y:[ -9 , -8 ]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 72 \rangle X: [-21, -20] Y: [-8, -7]
```

```
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 0.6365141682948128
\langle \text{Window}: 73 \rangle X: [-21, -20] Y: [-7, -6]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 0.6365141682948128
<Window: 74 > X:[ -21 , -20 ] Y:[ -6 , -5 ]
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 0.6931471805599453
\langle \text{Window}: 75 \rangle X: [-21, -20] Y: [-5, -4]
Found Entropy: 0
\{Window: 76 > X: [ -21 , -20 ] Y: [ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 77 > X: [-21, -20] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window: 78} \rangle \text{ X: [-21, -20] Y: [-2, -1]}
Found Entropy: 0
\langle \text{Window}: 79 \rangle X: [-21, -20] Y: [-1, 0]
Found Entropy: 0
<Window: 80 > X:[ -21 , -20 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 81 > X:[ -21 , -20 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 82 > X:[ -21 , -20 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 83 > X:[ -21 , -20 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 84 > X:[ -21 , -20 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 85 \rangle \text{ X: [ } -20 \text{ , } -19 \text{ ] } \text{ Y: [ } -9 \text{ , } -8 \text{ ]}
Found Entropy: 0
\{Window: 86 \} X: [ -20 , -19 ] Y: [ -8 , -7 ]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 87 \rangle X: [-20, -19] Y: [-7, -6]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 1.0397207708399179
\langle \text{Window: 88} \rangle \text{ X: [ -20 , -19 ] Y: [ -6 , -5 ]}
```

```
Found Entropy: 0
\forall 1.89 > X:[-20, -19] Y:[-5, -4]
Found Entropy: 0
\{Window: 90 > X:[ -20 , -19 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 91 \rangle \ \text{X:[} -20 \ , -19 \ ] \ \text{Y:[} -3 \ , -2 \ ]
Found Entropy: 0
\langle \text{Window: } 92 \rangle \ \text{X:[} -20 \ , -19 \ ] \ \text{Y:[} -2 \ , -1 \ ]
Found Entropy: 0
\langle \text{Window: 93} \rangle X: [-20, -19] Y: [-1, 0]
Found Entropy: 0
<Window: 94 > X:[ -20 , -19 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 95 > X:[ -20 , -19 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 96 > X:[ -20 , -19 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 97 > X:[ -20 , -19 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 98 > X:[ -20 , -19 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 99 > X:[ -19 , -18 ] Y:[ -9 , -8 ]
Found Entropy: 0
\{Window: 100 > X:[-19, -18] Y:[-8, -7]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 101 > X:[ -19 , -18 ] Y:[ -7 , -6 ]
Found Entropy: 0
\langle \text{Window: } 102 \rangle \text{ X:[} -19 , -18 ] \text{ Y:[} -6 , -5 ]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 103 \rangle X: [-19, -18] Y: [-5, -4]
Found Entropy: 0
\{Window: 104 > X:[-19, -18] Y:[-4, -3]
Found Entropy: 0
\langle \text{Window: } 105 \rangle \text{ X:[} -19 , -18 ] \text{ Y:[} -3 , -2 ]
Found Entropy: 0
\langle \text{Window: } 106 \rangle \ \text{X:[} -19 \ , -18 \ ] \ \text{Y:[} -2 \ , -1 \ ]
Found Entropy: 0
\langle \text{Window}: 107 > X:[-19, -18] Y:[-1, 0]
Found Entropy: 0
<Window: 108 > X:[ -19 , -18 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 109 > X:[ -19 , -18 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window: } 110 \rangle \ \text{X:[} -19 \ , -18 \ ] \ \text{Y:[} 2 \ , 3 \ ]
Found Entropy: 0
\langle \text{Window: } 111 \rangle \ \text{X:[} -19 \ , -18 \ ] \ \text{Y:[} 3 \ , 4 \ ]
```

```
Found Entropy: 0
\forall 112 > X:[-19, -18] Y:[4, 5]
Found Entropy: 0
<Window: 113 > X:[ -18 , -17 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 114 > X:[-18, -17] Y:[-8, -7]
Found Entropy: 0
\langle \text{Window}: 115 \rangle X: [-18, -17] Y: [-7, -6]
Found Entropy: 0
<Window: 116 > X:[ -18 , -17 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 117 > X:[ -18 , -17 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 118 > X:[ -18 , -17 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 119 \rangle \ \text{X:[} -18 \ , -17 \ ] \ \text{Y:[} -3 \ , -2 \ ]
Found Entropy: 0
\forall \text{Window: } 120 > X:[-18, -17] Y:[-2, -1]
Found Entropy: 0
<Window: 121 > X:[ -18 , -17 ] Y:[ -1 , 0 ]
Found Entropy: 0
\langle \text{Window: } 122 \rangle \ \text{X:[} -18 \ , -17 \ ] \ \text{Y:[} 0 \ , 1 \ ]
Found Entropy: 0
<Window: 123 > X:[ -18 , -17 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window}: 124 \rangle X: [-18, -17] Y: [2, 3]
Found Entropy: 0
<Window: 125 > X:[ -18 , -17 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 126 > X:[ -18 , -17 ] Y:[ 4 , 5 ]
Found Entropy: 0
\forall x = 127 > x : [ -17 , -16 ] Y : [ -9 , -8 ]
Found Entropy: 0
\forall X: [-17, -16] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window: } 129 \rangle \ \text{X:[} -17 \ , -16 \ ] \ \text{Y:[} -7 \ , -6 \ ]
Found Entropy: 0
\langle \text{Window: } 130 \rangle \text{ X:[} -17 , -16 ] \text{ Y:[} -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 131 \rangle X: [-17, -16] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 132 \rangle X: [-17, -16] Y: [-4, -3]
Found Entropy: 0
<Window: 133 > X:[ -17 , -16 ] Y:[ -3 , -2 ]
Found Entropy: 0
\forall \text{Window: } 134 > X:[-17, -16] Y:[-2, -1]
Found Entropy: 0
<Window: 135 > X:[ -17 , -16 ] Y:[ -1 , 0 ]
```

```
Found Entropy: 0
<Window: 136 > X:[ -17 , -16 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 137 > X:[ -17 , -16 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window: } 138 \rangle \ \text{X:[} -17 \ , -16 \ ] \ \text{Y:[} 2 \ , 3 \ ]
Found Entropy: 0
\langle \text{Window: } 139 \rangle \ \text{X:[} -17 \ , -16 \ ] \ \text{Y:[} 3 \ , 4 \ ]
Found Entropy: 0
\langle \text{Window}: 140 \rangle X: [-17, -16] Y: [4, 5]
Found Entropy: 0
\langle \text{Window: } 141 \rangle \ \text{X:[} -16 \ , -15 \ ] \ \text{Y:[} -9 \ , -8 \ ]
Found Entropy: 0
<Window: 142 > X:[ -16 , -15 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window}: 143 \rangle X: [-16, -15] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 144 \rangle X: [-16, -15] Y: [-6, -5]
Found Entropy: 0
<Window: 145 > X:[ -16 , -15 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 146 \rangle X: [-16, -15] Y: [-4, -3]
Found Entropy: 0
<Window: 147 > X:[ -16 , -15 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window}: 148 \rangle X: [-16, -15] Y: [-2, -1]
Found Entropy: 0
<Window: 149 > X:[ -16 , -15 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 150 > X:[ -16 , -15 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window: } 151 \rangle \ \text{X:[} -16 \ , -15 \ ] \ \text{Y:[} 1 \ , 2 \ ]
Found Entropy: 0
\forall X: [-16, -15] Y: [2, 3]
Found Entropy: 0
<Window: 153 > X:[ -16 , -15 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window: } 154 \rangle \ \text{X:[} -16 \ , -15 \ ] \ \text{Y:[} 4 \ , 5 \ ]
Found Entropy: 0
<Window: 155 > X:[ -15 , -14 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 156 > X:[ -15 , -14 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 157 > X:[ -15 , -14 ] Y:[ -7 , -6 ]
Found Entropy: 0
\langle \text{Window}: 158 \rangle X: [-15, -14] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 159 \rangle X: [-15, -14] Y: [-5, -4]
```

```
Found Entropy: 0
\langle \text{Window}: 160 \rangle X: [-15, -14] Y: [-4, -3]
Found Entropy: 0
<Window: 161 > X:[ -15 , -14 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window}: 162 \rangle X: [-15, -14] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window: } 163 \rangle \ \text{X:[} -15 \ , -14 \ ] \ \text{Y:[} -1 \ , 0 \ ]
Found Entropy: 0
<Window: 164 > X:[ -15 , -14 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 165 > X:[ -15 , -14 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 166 > X:[ -15 , -14 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 167 > X:[ -15 , -14 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 168 > X:[ -15 , -14 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 169 \rangle X: [-14, -13] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window: } 170 \rangle \text{ X:[} -14 , -13 ] \text{ Y:[} -8 , -7 ]
Found Entropy: 0
\langle \text{Window}: 171 \rangle X: [-14, -13] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 172 \rangle X: [-14, -13] Y: [-6, -5]
Found Entropy: 0
\forall 173 > X:[-14, -13] Y:[-5, -4]
Found Entropy: 0
\forall 174 > X:[-14, -13] Y:[-4, -3]
Found Entropy: 0
\forall \text{Window: } 175 > X:[-14, -13] Y:[-3, -2]
Found Entropy: 0
\{Window: 176 > X:[-14, -13] Y:[-2, -1]
Found Entropy: 0
\langle \text{Window: } 177 \rangle X:[-14, -13] Y:[-1, 0]
Found Entropy: 0
\langle \text{Window: } 178 \rangle \ \text{X:[} -14 \ , -13 \ ] \ \text{Y:[} 0 \ , 1 \ ]
Found Entropy: 0
\langle \text{Window: } 179 \rangle \ \text{X:[} -14 \ , -13 \ ] \ \text{Y:[} 1 \ , 2 \ ]
Found Entropy: 0
<Window: 180 > X:[ -14 , -13 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 181 > X:[ -14 , -13 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window: } 182 \rangle \ \text{X:[} -14 \ , -13 \ ] \ \text{Y:[} 4 \ , 5 \ ]
Found Entropy: 0
\langle \text{Window: } 183 \rangle \ \text{X:[} -13 , -12 \ ] \ \text{Y:[} -9 , -8 \ ]
```

```
Found Entropy: 0
\langle \text{Window}: 184 \rangle X: [ -13 , -12 ] Y: [ -8 , -7 ]
Found Entropy: 0
<Window: 185 > X:[ -13 , -12 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 186 > X:[ -13 , -12 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 187 \rangle \text{ X:[} -13 , -12 ] \text{ Y:[} -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 188 \rangle X: [-13, -12] Y: [-4, -3]
Found Entropy: 0
\langle Window: 189 \rangle X: [ -13 , -12 ] Y: [ -3 , -2 ]
Found Entropy: 0
\forall 190 > X:[-13, -12] Y:[-2, -1]
Found Entropy: 0
\langle \text{Window: 191} \rangle X: [-13, -12] Y: [-1, 0]
Found Entropy: 0
\langle \text{Window: } 192 \rangle X:[-13, -12] Y:[0, 1]
Found Entropy: 0
<Window: 193 > X:[ -13 , -12 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window: } 194 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} 2 \ , 3 \ ]
Found Entropy: 0
<Window: 195 > X:[ -13 , -12 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window}: 196 \rangle X: [-13, -12] Y: [4, 5]
Found Entropy: 0
\forall \text{Window: } 197 > X:[-12, -11] Y:[-9, -8]
Found Entropy: 0
\forall 198 > X:[-12,-11] Y:[-8,-7]
Found Entropy: 0
\forall 199 > X:[-12, -11] Y:[-7, -6]
Found Entropy: 0
\{Window: 200 \} X: [ -12 , -11 ] Y: [ -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 201 \rangle X: [-12, -11] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 202 \rangle X: [-12, -11] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 203 \rangle X: [-12, -11] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window: } 204 \rangle \text{ X: [ } -12 \text{ , } -11 \text{ ] } \text{ Y: [ } -2 \text{ , } -1 \text{ ] }
Found Entropy: 0
<Window: 205 > X:[ -12 , -11 ] Y:[ -1 , 0 ]
Found Entropy: 0
\langle \text{Window}: 206 \rangle X: [-12, -11] Y: [0, 1]
Found Entropy: 0
\langle \text{Window: } 207 \rangle X:[-12, -11] Y:[1, 2]
```

```
Found Entropy: 0
\forall X: [-12, -11] Y: [2, 3]
Found Entropy: 0
\forall X: [-12, -11] Y: [3, 4]
Found Entropy: 0
\langle \text{Window}: 210 \rangle X: [-12, -11] Y: [4, 5]
Found Entropy: 0
<Window: 211 > X:[ -11 , -10 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 212 > X:[ -11 , -10 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window}: 213 \rangle X: [-11, -10] Y: [-7, -6]
Found Entropy: 0
\forall X:[-11, -10] Y:[-6, -5]
Found Entropy: 0
\langle \text{Window}: 215 \rangle X: [-11, -10] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 216 \rangle X: [-11, -10] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 217 \rangle X: [-11, -10] Y: [-3, -2]
Found Entropy: 0
<Window: 218 > X:[ -11 , -10 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 219 > X:[ -11 , -10 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 220 > X:[ -11 , -10 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window: } 221 \rangle X:[-11, -10] Y:[1, 2]
Found Entropy: 0
\forall X : [-11, -10] Y : [2, 3]
Found Entropy: 0
\langle \text{Window: } 223 \rangle X:[-11, -10] Y:[3, 4]
Found Entropy: 0
\{Window: 224 > X:[-11, -10] Y:[4, 5]
Found Entropy: 0
\langle \text{Window: } 225 \rangle \text{ X:[} -10 , -9 ] \text{ Y:[} -9 , -8 ]
Found Entropy: 0
<Window: 226 > X:[ -10 , -9 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window}: 227 \rangle X: [-10, -9] Y: [-7, -6]
Found Entropy: 0
<Window: 228 > X:[ -10 , -9 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 229 \rangle X:[-10, -9] Y:[-5, -4]
Found Entropy: 0
<Window: 230 > X:[ -10 , -9 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 231 \rangle X: [-10, -9] Y: [-3, -2]
```

```
Found Entropy: 0
\langle \text{Window}: 232 \rangle X: [-10, -9] Y: [-2, -1]
Found Entropy: 0
<Window: 233 > X:[ -10 , -9 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 234 > X:[ -10 , -9 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 235 > X:[ -10 , -9 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 236 > X:[ -10 , -9 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 237 > X:[ -10 , -9 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 238 > X:[ -10 , -9 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 239 \rangle X:[-9, -8] Y:[-9, -8]
Found Entropy: 0
\langle \text{Window: } 240 \rangle \text{ X:[} -9 , -8 ] \text{ Y:[} -8 , -7 ]
Found Entropy: 0
\langle \text{Window}: 241 > X:[-9, -8] Y:[-7, -6]
Found Entropy: 0
\langle \text{Window: } 242 \rangle \ \text{X:[} -9 \ , -8 \ ] \ \text{Y:[} -6 \ , -5 \ ]
Found Entropy: 0
\langle \text{Window}: 243 \rangle X: [-9, -8] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 244 \rangle X: [-9, -8] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 245 \rangle X: [-9, -8] Y: [-3, -2]
Found Entropy: 0
<Window: 246 > X:[ -9 , -8 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 247 > X:[ -9 , -8 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 248 > X:[-9, -8] Y:[0, 1]
Found Entropy: 0
\langle \text{Window}: 249 \rangle X:[-9, -8] Y:[1, 2]
Found Entropy: 0
\langle \text{Window}: 250 \rangle X:[-9, -8] Y:[2, 3]
Found Entropy: 0
<Window: 251 > X:[ -9 , -8 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 252 > X:[ -9 , -8 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 253 > X:[ -8 , -7 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 254 \rangle X: [-8, -7] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 255 \rangle X: [-8, -7] Y: [-7, -6]
```

```
Found Entropy: 0
<Window: 256 > X:[ -8 , -7 ] Y:[ -6 , -5 ]
Found Entropy: 0
\forall X:[-8,-7] Y:[-5,-4]
Found Entropy: 0
\langle \text{Window}: 258 \rangle X: [-8, -7] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 259 \rangle X: [-8, -7] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 260 \rangle X: [-8, -7] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 261 \rangle X: [-8, -7] Y: [-1, 0]
Found Entropy: 0
<Window: 262 > X:[ -8 , -7 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 263 > X:[ -8 , -7 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 264 > X:[ -8 , -7 ] Y:[ 2 , 3 ]
Found Entropy: 0
\langle \text{Window}: 265 \rangle X: [-8, -7] Y: [3, 4]
Found Entropy: 0
<Window: 266 > X:[ -8 , -7 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 267 \rangle X: [-7, -6] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 268 \rangle X: [-7, -6] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window: } 269 \rangle X:[-7,-6] Y:[-7,-6]
Found Entropy: 0
<Window: 270 > X:[ -7 , -6 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 271 > X:[-7, -6] Y:[-5, -4]
Found Entropy: 0
\forall X: [-7, -6] \ Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 273 \rangle X: [-7, -6] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 274 \rangle X: [-7, -6] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 275 \rangle X: [-7, -6] Y: [-1, 0]
Found Entropy: 0
<Window: 276 > X:[ -7 , -6 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 277 > X:[ -7 , -6 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window}: 278 \rangle X:[-7,-6] Y:[2,3]
Found Entropy: 0
<Window: 279 > X:[ -7 , -6 ] Y:[ 3 , 4 ]
```

```
Found Entropy: 0
<Window: 280 > X:[ -7 , -6 ] Y:[ 4 , 5 ]
Found Entropy: 0
\forall X:[-6,-5] Y:[-9,-8]
Found Entropy: 0
\langle \text{Window: } 282 \rangle \text{ X:} [ -6 , -5 ] \text{ Y:} [ -8 , -7 ]
Found Entropy: 0
\langle \text{Window: 283} \rangle X: [-6, -5] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 284 \rangle X: [-6, -5] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window: } 285 \rangle \text{ X:} [ -6 , -5 ] \text{ Y:} [ -5 , -4 ]
Found Entropy: 0
<Window: 286 > X:[ -6 , -5 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 287 \rangle \text{ X:[} -6 , -5 ] \text{ Y:[} -3 , -2 ]
Found Entropy: 0
\langle \text{Window: 288} \rangle X: [-6, -5] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 289 \rangle X: [-6, -5] Y: [-1, 0]
Found Entropy: 0
<Window: 290 > X:[ -6 , -5 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 291 > X:[ -6 , -5 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle Window: 292 \rangle X: [-6, -5] Y: [2, 3]
Found Entropy: 0
<Window: 293 > X:[ -6 , -5 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 294 > X:[ -6 , -5 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 295 \rangle X: [-5, -4] Y: [-9, -8]
Found Entropy: 0
<Window: 296 > X:[ -5 , -4 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window: } 297 \rangle \text{ X:} [-5, -4] \text{ Y:} [-7, -6]
Found Entropy: 0
\langle \text{Window: } 298 \rangle \ \text{X:} [ -5 , -4 ] \ \text{Y:} [ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 299 \rangle \ X: [-5, -4] \ Y: [-5, -4]
Found Entropy: 0
<Window: 300 > X:[ -5 , -4 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 301 \rangle X: [-5, -4] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 302 \rangle X: [-5, -4] Y: [-2, -1]
Found Entropy: 0
<Window: 303 > X:[ -5 , -4 ] Y:[ -1 , 0 ]
```

```
Found Entropy: 0
<Window: 304 > X:[ -5 , -4 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 305 > X:[-5, -4] Y:[1, 2]
Found Entropy: 0
<Window: 306 > X:[ -5 , -4 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 307 > X:[ -5 , -4 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window}: 308 \rangle X: [-5, -4] Y: [4, 5]
Found Entropy: 0
\langle \text{Window: } 309 \rangle \ \text{X:[} -4 , -3 ] \ \text{Y:[} -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 310 \rangle X: [-4, -3] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 311 \rangle X: [-4, -3] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 312 \rangle X: [-4, -3] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 313 \rangle X: [-4, -3] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 314 \rangle X: [-4, -3] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 315 \rangle X: [-4, -3] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 316 \rangle X: [-4, -3] Y: [-2, -1]
Found Entropy: 0
<Window: 317 > X:[-4, -3] Y:[-1, 0]
Found Entropy: 0
<Window: 318 > X:[ -4 , -3 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 319 > X:[ -4 , -3 ] Y:[ 1 , 2 ]
Found Entropy: 0
\{\text{Window: } 320 > \text{X:} [-4, -3] \text{ Y:} [2, 3]
Found Entropy: 0
\langle \text{Window}: 321 \rangle X: [-4, -3] Y: [3, 4]
Found Entropy: 0
\langle \text{Window}: 322 \rangle X: [-4, -3] Y: [4, 5]
Found Entropy: 0
\langle \text{Window}: 323 \rangle X: [-3, -2] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 324 \rangle X: [-3, -2] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 325 \rangle X: [-3, -2] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 326 \rangle X: [-3, -2] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 327 \rangle X: [-3, -2] Y: [-5, -4]
```

```
Found Entropy: 0
<Window: 328 > X:[ -3 , -2 ] Y:[ -4 , -3 ]
Found Entropy: 0
\forall X: [-3, -2] \ Y: [-3, -2]
Found Entropy: 0
\langle \text{Window: } 330 \rangle \text{ X:} [ -3 , -2 ] \text{ Y:} [ -2 , -1 ]
Found Entropy: 0
\langle \text{Window: } 331 \rangle \ \text{X:[} -3 \ , -2 \ ] \ \text{Y:[} -1 \ , 0 \ ]
Found Entropy: 0
\langle \text{Window}: 332 \rangle X: [-3, -2] Y: [0, 1]
Found Entropy: 0
<Window: 333 > X:[ -3 , -2 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 334 > X:[ -3 , -2 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 335 > X:[ -3 , -2 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 336 > X:[ -3 , -2 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 337 \rangle X: [-2, -1] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window: } 338 \rangle \ \text{X:[} -2 \ , -1 \ ] \ \text{Y:[} -8 \ , -7 \ ]
Found Entropy: 0
\langle \text{Window}: 339 \rangle X: [-2, -1] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 340 \rangle X: [-2, -1] Y: [-6, -5]
Found Entropy: 0
\forall x : [-2, -1] \ Y : [-5, -4]
Found Entropy: 0
<Window: 342 > X:[ -2 , -1 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 343 > X:[ -2 , -1 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 344 > X:[-2, -1] Y:[-2, -1]
Found Entropy: 0
\langle \text{Window: } 345 \rangle \text{ X: [} -2 \text{ , } -1 \text{ ] } \text{ Y: [} -1 \text{ , } 0 \text{ ]}
Found Entropy: 0
<Window: 346 > X:[ -2 , -1 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 347 \rangle X: [-2, -1] Y: [1, 2]
Found Entropy: 0
<Window: 348 > X:[ -2 , -1 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 349 > X:[ -2 , -1 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 350 > X:[ -2 , -1 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 351 > X:[-1, 0] Y:[-9, -8]
```

```
Found Entropy: 0
<Window: 352 > X:[-1, 0] Y:[-8, -7]
Found Entropy: 0
<Window: 353 > X:[-1, 0] Y:[-7, -6]
Found Entropy: 0
<Window: 354 > X:[ -1 , 0 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 355 > X:[ -1 , 0 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 356 \rangle X: [-1, 0] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 357 \rangle X: [-1, 0] Y: [-3, -2]
Found Entropy: 0
<Window: 358 > X:[ -1 , 0 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 359 > X:[ -1 , 0 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 360 > X:[ -1 , 0 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 361 \rangle X: [-1, 0] Y: [1, 2]
Found Entropy: 0
<Window: 362 > X:[ -1 , 0 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 363 > X:[ -1 , 0 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 364 > X:[ -1 , 0 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 365 > X:[ 0 , 1 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 366 > X:[0, 1] Y:[-8, -7]
Found Entropy: 0
<Window: 367 > X:[ 0 , 1 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 368 > X:[ 0 , 1 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 369 > X:[ 0 , 1 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 370 > X:[ 0 , 1 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 371 > X:[ 0 , 1 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 372 > X:[ 0 , 1 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 373 > X:[ 0 , 1 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 374 > X:[ 0 , 1 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 375 > X:[ 0 , 1 ] Y:[ 1 , 2 ]
```

```
Found Entropy: 0
<Window: 376 > X:[0, 1] Y:[2, 3]
Found Entropy: 0
<Window: 377 > X:[0,1] Y:[3,4]
Found Entropy: 0
<Window: 378 > X:[0, 1] Y:[4, 5]
Found Entropy: 0
<Window: 379 > X:[1,2] Y:[-9,-8]
Found Entropy: 0
\langle \text{Window}: 380 \rangle X: [1, 2] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 381 \rangle X: [1, 2] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 382 \rangle X: [1, 2] Y: [-6, -5]
Found Entropy: 0
<Window: 383 > X:[1,2] Y:[-5,-4]
Found Entropy: 0
<Window: 384 > X:[1,2] Y:[-4,-3]
Found Entropy: 0
\langle \text{Window}: 385 \rangle X: [1, 2] Y: [-3, -2]
Found Entropy: 0
<Window: 386 > X:[1,2] Y:[-2,-1]
Found Entropy: 0
<Window: 387 > X:[1, 2] Y:[-1, 0]
Found Entropy: 0
<Window: 388 > X:[ 1 , 2 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 389 \rangle X:[1,2] Y:[1,2]
Found Entropy: 0
<Window: 390 > X:[ 1 , 2 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 391 > X:[ 1 , 2 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 392 > X:[ 1 , 2 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 393 > X:[ 2 , 3 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 394 > X:[ 2 , 3 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 395 > X:[ 2 , 3 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 396 > X:[ 2 , 3 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 397 > X:[ 2 , 3 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 398 \rangle X: [2, 3] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 399 \rangle X: [2, 3] Y: [-3, -2]
```

```
Found Entropy: 0
<Window: 400 > X:[ 2 , 3 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 401 > X:[2, 3] Y:[-1, 0]
Found Entropy: 0
<Window: 402 > X:[2, 3] Y:[0, 1]
Found Entropy: 0
<Window: 403 > X:[ 2 , 3 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 404 > X:[ 2 , 3 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 405 > X:[ 2 , 3 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 406 > X:[ 2 , 3 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 407 > X:[3,4] Y:[-9,-8]
Found Entropy: 0
<Window: 408 > X:[3,4] Y:[-8,-7]
Found Entropy: 0
<Window: 409 > X:[3,4] Y:[-7,-6]
Found Entropy: 0
<Window: 410 > X:[3, 4] Y:[-6, -5]
Found Entropy: 0
\langle \text{Window}: 411 \rangle X: [3, 4] Y: [-5, -4]
Found Entropy: 0
\{\text{Window}: 412 > X: [3, 4] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 413 \rangle X: [3, 4] Y: [-3, -2]
Found Entropy: 0
<Window: 414 > X:[3, 4] Y:[-2, -1]
Found Entropy: 0
<Window: 415 > X:[3, 4] Y:[-1, 0]
Found Entropy: 0
<Window: 416 > X:[ 3 , 4 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 417 > X:[ 3 , 4 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 418 > X:[3, 4] Y:[2, 3]
Found Entropy: 0
<Window: 419 > X:[ 3 , 4 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 420 > X:[ 3 , 4 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 421 > X:[ 4 , 5 ] Y:[ -9 , -8 ]
Found Entropy: 0
\{\text{Window: } 422 > X: [4, 5] Y: [-8, -7] \}
Found Entropy: 0
<Window: 423 > X:[ 4 , 5 ] Y:[ -7 , -6 ]
```

```
Found Entropy: 0
\{Window: 424 > X:[4,5] Y:[-6,-5]
Found Entropy: 0
\{\text{Window: } 425 > X: [4, 5] Y: [-5, -4]
Found Entropy: 0
\{\text{Window: } 426 > X: [4, 5] Y: [-4, -3]
Found Entropy: 0
<Window: 427 > X:[ 4 , 5 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle Window: 428 \rangle X: [4, 5] Y: [-2, -1]
Found Entropy: 0
<Window: 429 > X:[ 4 , 5 ] Y:[ -1 , 0 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 430 > X:[ 4 , 5 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 431 > X:[4,5] Y:[1,2]
Found Entropy: 0
<Window: 432 > X:[4,5] Y:[2,3]
Found Entropy: 0
<Window: 433 > X:[ 4 , 5 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 434 > X:[ 4 , 5 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 435 > X:[5,6] Y:[-9,-8]
Found Entropy: 0
<Window: 436 > X:[5,6] Y:[-8,-7]
Found Entropy: 0
<Window: 437 > X:[5,6] Y:[-7,-6]
Found Entropy: 0
<Window: 438 > X:[5,6] Y:[-6,-5]
Found Entropy: 0
<Window: 439 > X:[5,6] Y:[-5,-4]
Found Entropy: 0
<Window: 440 > X:[5,6] Y:[-4,-3]
Found Entropy: 0
\langle \text{Window}: 441 \rangle X: [5, 6] Y: [-3, -2]
Found Entropy: 0
\{\text{Window: } 442 > X: [5, 6] Y: [-2, -1]
Found Entropy: 0
<Window: 443 > X:[5, 6] Y:[-1, 0]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.6365141682948128
<Window: 444 > X:[5,6] Y:[0,1]
Found a sample of class: 1
Found a sample of class: 1
```

```
Found Entropy: 0.0
<Window: 445 > X:[ 5 , 6 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 446 > X:[5, 6] Y:[2, 3]
Found Entropy: 0
<Window: 447 > X:[ 5 , 6 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 448 > X:[ 5 , 6 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 449 > X:[6,7] Y:[-9,-8]
Found Entropy: 0
<Window: 450 > X:[ 6 , 7 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 451 > X:[ 6 , 7 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 452 > X:[ 6 , 7 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 453 > X:[ 6 , 7 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 454 > X:[6,7] Y:[-4,-3]
Found Entropy: 0
\langle \text{Window}: 455 \rangle X: [6, 7] Y: [-3, -2]
Found Entropy: 0
\{\text{Window: } 456 > X: [6, 7] Y: [-2, -1]
Found Entropy: 0
<Window: 457 > X:[6,7] Y:[-1,0]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 1.0986122886681096
<Window: 458 > X:[6,7] Y:[0,1]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.6365141682948128
<Window: 459 > X:[ 6 , 7 ] Y:[ 1 , 2 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 460 > X:[ 6 , 7 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 461 > X:[6, 7] Y:[3, 4]
Found Entropy: 0
<Window: 462 > X:[ 6 , 7 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 463 > X:[ 7 , 8 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 464 > X:[7,8] Y:[-8,-7]
Found Entropy: 0
```

```
<Window: 465 > X:[7,8] Y:[-7,-6]
Found Entropy: 0
<Window: 466 > X:[ 7 , 8 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 467 > X:[7,8] Y:[-5,-4]
Found Entropy: 0
\{\text{Window: } 468 > X: [7, 8] Y: [-4, -3]
Found Entropy: 0
<Window: 469 > X:[7,8] Y:[-3,-2]
Found Entropy: 0
<Window: 470 > X:[7,8] Y:[-2,-1]
Found a sample of class: 0
Found Entropy: 0.0
\langle Window: 471 \rangle X:[7,8] Y:[-1,0]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 472 > X:[7,8] Y:[0,1]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 473 > X:[ 7 , 8 ] Y:[ 1 , 2 ]
Found Entropy: 0
\{\text{Window}: 474 > X: [7, 8] Y: [2, 3]
Found Entropy: 0
<Window: 475 > X:[7,8] Y:[3,4]
Found Entropy: 0
<Window: 476 > X:[ 7 , 8 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 477 > X:[8,9] Y:[-9,-8]
Found Entropy: 0
<Window: 478 > X:[8,9] Y:[-8,-7]
Found Entropy: 0
<Window: 479 > X:[8, 9] Y:[-7, -6]
Found Entropy: 0
<Window: 480 > X:[8,9] Y:[-6,-5]
Found Entropy: 0
<Window: 481 > X:[8,9] Y:[-5,-4]
Found Entropy: 0
<Window: 482 > X:[8,9] Y:[-4,-3]
Found Entropy: 0
<Window: 483 > X:[8,9] Y:[-3,-2]
Found Entropy: 0
\{\text{Window: } 484 > X:[8,9] Y:[-2,-1]
Found Entropy: 0
<Window: 485 > X:[8,9] Y:[-1,0]
```

```
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.6365141682948128
<Window: 486 > X:[ 8 , 9 ] Y:[ 0 , 1 ]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 487 > X:[ 8 , 9 ] Y:[ 1 , 2 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 488 > X:[ 8 , 9 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 489 > X:[8, 9] Y:[3, 4]
Found Entropy: 0
<Window: 490 > X:[8, 9] Y:[4, 5]
Found Entropy: 0
<Window: 491 > X:[ 9 , 10 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 492 > X:[ 9 , 10 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 493 > X:[ 9 , 10 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 494 > X:[9, 10] Y:[-6, -5]
Found Entropy: 0
\langle \text{Window}: 495 \rangle X: [9, 10] Y: [-5, -4]
Found Entropy: 0
<Window: 496 > X:[ 9 , 10 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 497 > X:[ 9 , 10 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 498 > X:[ 9 , 10 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 499 > X:[9, 10] Y:[-1, 0]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 500 > X:[ 9 , 10 ] Y:[ 0 , 1 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 501 > X:[ 9 , 10 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 502 > X:[ 9 , 10 ] Y:[ 2 , 3 ]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 503 > X:[ 9 , 10 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 504 > X:[ 9 , 10 ] Y:[ 4 , 5 ]
```

```
Found Entropy: 0
<Window: 505 > X:[ 10 , 11 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 506 > X:[ 10 , 11 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 507 > X:[ 10 , 11 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 508 > X:[ 10 , 11 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 509 > X:[ 10 , 11 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window: 510} \rangle \text{ X:[ 10 , 11 ] Y:[ -4 , -3 ]}
Found Entropy: 0
<Window: 511 > X:[ 10 , 11 ] Y:[ -3 , -2 ]
Found Entropy: 0
\forall X:[10, 11] Y:[-2, -1]
Found Entropy: 0
<Window: 513 > X:[ 10 , 11 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 514 > X:[ 10 , 11 ] Y:[ 0 , 1 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 515 > X:[ 10 , 11 ] Y:[ 1 , 2 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 516 > X:[ 10 , 11 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 517 > X:[ 10 , 11 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 518 > X:[ 10 , 11 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 519 > X:[ 11 , 12 ] Y:[ -9 , -8 ]
Found Entropy: 0
\{Window: 520 > X:[11, 12] Y:[-8, -7]
Found Entropy: 0
\{Window: 521 > X:[11, 12] Y:[-7, -6]
Found Entropy: 0
\forall X: [11, 12] Y: [-6, -5]
Found Entropy: 0
<Window: 523 > X:[ 11 , 12 ] Y:[ -5 , -4 ]
Found Entropy: 0
\forall x \in X : [11, 12] Y : [-4, -3]
Found Entropy: 0
\langle \text{Window}: 525 \rangle X: [11, 12] Y: [-3, -2]
Found Entropy: 0
```

```
<Window: 526 > X:[ 11 , 12 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 527 > X:[ 11 , 12 ] Y:[ -1 , 0 ]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 528 > X:[ 11 , 12 ] Y:[ 0 , 1 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 529 > X:[ 11 , 12 ] Y:[ 1 , 2 ]
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.6931471805599453
<Window: 530 > X:[ 11 , 12 ] Y:[ 2 , 3 ]
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 531 > X:[ 11 , 12 ] Y:[ 3 , 4 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 532 > X:[ 11 , 12 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 533 > X:[ 12 , 13 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window: } 534 \rangle \text{ X:} [ 12 , 13 ] \text{ Y:} [ -8 , -7 ]
Found Entropy: 0
\langle \text{Window: 535} \rangle X: [12, 13] Y: [-7, -6]
Found Entropy: 0
<Window: 536 > X:[ 12 , 13 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 537 \rangle \text{ X:[ } 12 \text{ , } 13 \text{ ] } \text{ Y:[ } -5 \text{ , } -4 \text{ ]}
Found Entropy: 0
\langle \text{Window: 538} \rangle \text{ X:[ 12 , 13 ] Y:[ -4 , -3 ]}
Found Entropy: 0
\langle \text{Window: 539} \rangle X: [12, 13] Y: [-3, -2]
Found Entropy: 0
\{\text{Window: 540} > \text{X:[12,13]} \text{Y:[-2,-1]}
Found Entropy: 0
<Window: 541 > X:[12, 13] Y:[-1, 0]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 542 > X:[ 12 , 13 ] Y:[ 0 , 1 ]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.6365141682948128
<Window: 543 > X:[ 12 , 13 ] Y:[ 1 , 2 ]
Found a sample of class: 1
```

```
Found Entropy: 0.0
<Window: 544 > X:[ 12 , 13 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 545 > X:[ 12 , 13 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 1.0397207708399179
<Window: 546 > X:[ 12 , 13 ] Y:[ 4 , 5 ]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6365141682948128
\langle \text{Window: 547} \rangle \text{ X:[ 13 , 14 ] Y:[ -9 , -8 ]}
Found Entropy: 0
<Window: 548 > X:[ 13 , 14 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 549 > X:[ 13 , 14 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 550 > X:[ 13 , 14 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 551 > X:[ 13 , 14 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 552 \rangle X: [13, 14] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 553 \rangle X: [13, 14] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 554 \rangle X: [13, 14] Y: [-2, -1]
Found Entropy: 0
<Window: 555 > X:[ 13 , 14 ] Y:[ -1 , 0 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 556 > X:[ 13 , 14 ] Y:[ 0 , 1 ]
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.6931471805599453
<Window: 557 > X:[ 13 , 14 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 558 > X:[ 13 , 14 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 559 > X:[ 13 , 14 ] Y:[ 3 , 4 ]
Found Entropy: 0
```

```
<Window: 560 > X:[ 13 , 14 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 561 > X:[ 14 , 15 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 562 > X:[ 14 , 15 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 563 > X:[ 14 , 15 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 564 > X:[ 14 , 15 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 565 > X:[ 14 , 15 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 566 > X:[ 14 , 15 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 567 \rangle X: [14, 15] Y: [-3, -2]
Found Entropy: 0
<Window: 568 > X:[ 14 , 15 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 569 > X:[14, 15] Y:[-1, 0]
Found Entropy: 0
<Window: 570 > X:[ 14 , 15 ] Y:[ 0 , 1 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 571 > X:[ 14 , 15 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 572 > X:[ 14 , 15 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 573 > X:[ 14 , 15 ] Y:[ 3 , 4 ]
Found a sample of class: 2
Found Entropy: 0.0
\forall X: [14, 15] Y: [4, 5]
Found Entropy: 0
\langle \text{Window: 575} \rangle X: [15, 16] Y: [-9, -8]
Found Entropy: 0
<Window: 576 > X:[ 15 , 16 ] Y:[ -8 , -7 ]
Found Entropy: 0
\{Window: 577 > X:[ 15 , 16 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 578 > X:[ 15 , 16 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 579 > X:[ 15 , 16 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 580 > X:[ 15 , 16 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 581 > X:[ 15 , 16 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 582 > X:[ 15 , 16 ] Y:[ -2 , -1 ]
Found Entropy: 0
```

```
<Window: 583 > X:[ 15 , 16 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 584 > X:[ 15 , 16 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 585 > X:[ 15 , 16 ] Y:[ 1 , 2 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 586 > X:[ 15 , 16 ] Y:[ 2 , 3 ]
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 587 > X:[ 15 , 16 ] Y:[ 3 , 4 ]
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 588 > X:[ 15 , 16 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 589 > X:[ 16 , 17 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 590 > X:[ 16 , 17 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 591 > X:[ 16 , 17 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 592 > X:[ 16 , 17 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 593 > X:[ 16 , 17 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 594 > X:[ 16 , 17 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 595 > X:[ 16 , 17 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 596 > X:[ 16 , 17 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 597 > X:[ 16 , 17 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 598 > X:[ 16 , 17 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 599 > X:[ 16 , 17 ] Y:[ 1 , 2 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 600 > X:[ 16 , 17 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 601 > X:[ 16 , 17 ] Y:[ 3 , 4 ]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
```

```
Found Entropy: 0.0
<Window: 602 > X:[ 16 , 17 ] Y:[ 4 , 5 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 603 > X:[ 17 , 18 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 604 > X:[ 17 , 18 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 605 > X:[ 17 , 18 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 606 > X:[ 17 , 18 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 607 > X:[ 17 , 18 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 608 > X:[ 17 , 18 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 609 \rangle \ \text{X:[} 17 , 18 \ ] \ \text{Y:[} -3 , -2 \ ]
Found Entropy: 0
<Window: 610 > X:[ 17 , 18 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 611 > X:[ 17 , 18 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 612 > X:[ 17 , 18 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 613 > X:[ 17 , 18 ] Y:[ 1 , 2 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 614 > X:[ 17 , 18 ] Y:[ 2 , 3 ]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.5623351446188083
<Window: 615 > X:[ 17 , 18 ] Y:[ 3 , 4 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 616 > X:[ 17 , 18 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 617 > X:[ 18 , 19 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 618 > X:[ 18 , 19 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window: 619} \rangle X: [18, 19] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window: } 620 \rangle \text{ X:} [ 18 , 19 ] \text{ Y:} [ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 621 \rangle \text{ X:} [ 18 , 19 ] \text{ Y:} [ -5 , -4 ]
```

```
Found Entropy: 0
\langle \text{Window: } 622 \rangle \text{ X:[ } 18 \text{ , } 19 \text{ ] } \text{ Y:[ } -4 \text{ , } -3 \text{ ]}
Found Entropy: 0
<Window: 623 > X:[ 18 , 19 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 624 > X:[ 18 , 19 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 625 > X:[ 18 , 19 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 626 > X:[ 18 , 19 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 627 > X:[ 18 , 19 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 628 > X:[ 18 , 19 ] Y:[ 2 , 3 ]
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 629 > X:[ 18 , 19 ] Y:[ 3 , 4 ]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.6365141682948128
<Window: 630 > X:[ 18 , 19 ] Y:[ 4 , 5 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 631 > X:[ 19 , 20 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window: } 632 \rangle \text{ X:} [19, 20] \text{ Y:} [-8, -7]
Found Entropy: 0
<Window: 633 > X:[ 19 , 20 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 634 > X:[ 19 , 20 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 635 > X:[ 19 , 20 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 636 > X:[ 19 , 20 ] Y:[ -4 , -3 ]
Found Entropy: 0
\{Window: 637 > X:[19, 20] Y:[-3, -2]
Found Entropy: 0
<Window: 638 > X:[ 19 , 20 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 639 > X:[ 19 , 20 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 640 > X:[ 19 , 20 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 641 > X:[ 19 , 20 ] Y:[ 1 , 2 ]
Found Entropy: 0
```

```
<Window: 642 > X:[ 19 , 20 ] Y:[ 2 , 3 ]
Found Entropy: 0
\langle Window: 643 \rangle X: [19, 20] Y: [3, 4]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 644 > X:[ 19 , 20 ] Y:[ 4 , 5 ]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.9502705392332347
<Window: 645 > X:[ 20 , 21 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 646 > X:[ 20 , 21 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 647 > X:[ 20 , 21 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 648 > X:[ 20 , 21 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 649 \rangle X: [20, 21] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window: } 650 \rangle \text{ X:} [20, 21] \text{ Y:} [-4, -3]
Found Entropy: 0
\langle \text{Window: } 651 \rangle \ \text{X:} [ 20 , 21 ] \ \text{Y:} [ -3 , -2 ]
Found Entropy: 0
\langle \text{Window: } 652 \rangle \text{ X:} [ 20 , 21 ] \text{ Y:} [ -2 , -1 ]
Found Entropy: 0
<Window: 653 > X:[ 20 , 21 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 654 > X:[ 20 , 21 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 655 > X:[ 20 , 21 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 656 > X:[ 20 , 21 ] Y:[ 2 , 3 ]
Found Entropy: 0
\langle Window: 657 \rangle X: [20, 21] Y: [3, 4]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 658 > X:[ 20 , 21 ] Y:[ 4 , 5 ]
Found a sample of class: 2
Found Entropy: 0.0
Total Count: 658
Expected Count: 658
OKAY: True
----Done--- 18.878635726235473
Done!
```

```
-26 21 -9 5
You Can use this matrix now.
X_{min} = -26
X_max= 21
Y min= -9
Y_max= 5
And the Matrix Shape: 47 * 14
\langle \text{Window: 1} \rangle X: [-26, -25] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window: 2} \rangle \text{ X:[-26,-25] Y:[-8,-7]}
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6931471805599453
\langle \text{Window}: 3 > X: [-26, -25] Y: [-7, -6]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.6931471805599453
\langle \text{Window}: 4 \rangle X: [-26, -25] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 5 \rangle X: [-26, -25] Y: [-5, -4]
Found Entropy: 0
\{Window: 6 > X:[ -26 , -25 ] Y:[ -4 , -3 ]
Found Entropy: 0
\{\text{Window}: 7 > X: [-26, -25] Y: [-3, -2]\}
Found Entropy: 0
\langle \text{Window: 8 > X:[-26,-25] Y:[-2,-1]}
Found Entropy: 0
\forall x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x = 0 < x 
Found Entropy: 0
<Window: 10 > X:[ -26 , -25 ] Y:[ 0 , 1 ]
Found Entropy: 0
\{\text{Window: } 11 > \text{X:} [-26, -25] \text{ Y:} [1, 2]
Found Entropy: 0
\langle \text{Window}: 12 \rangle X: [-26, -25] Y: [2, 3]
Found Entropy: 0
<Window: 13 > X:[ -26 , -25 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 14 > X:[ -26 , -25 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 15 \rangle X: [-25, -24] Y: [-9, -8]
Found Entropy: 0
\{Window: 16 > X:[ -25 , -24 ] Y:[ -8 , -7 ]
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 0.6931471805599453
\langle \text{Window}: 17 > X: [-25, -24] Y: [-7, -6]
```

```
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 1.0397207708399179
\forall X: [-25, -24] Y: [-6, -5]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 19 \rangle X: [-25, -24] Y: [-5, -4]
Found Entropy: 0
\{Window: 20 > X:[ -25 , -24 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 21 \rangle X: [-25, -24] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 22 \rangle X: [-25, -24] Y: [-2, -1]
Found Entropy: 0
\{Window: 23 > X:[ -25 , -24 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 24 > X:[-25, -24] Y:[0, 1]
Found Entropy: 0
<Window: 25 > X:[ -25 , -24 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 26 > X:[ -25 , -24 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 27 > X:[ -25 , -24 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window: 28} \rangle X: [-25, -24] Y: [4, 5]
Found Entropy: 0
\langle \text{Window: } 29 \rangle \text{ X:} [ -24 , -23 ] \text{ Y:} [ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 30 \rangle X: [-24, -23] Y: [-8, -7]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 31 \rangle X: [-24, -23] Y: [-7, -6]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 1.0397207708399179
\forall X: [-24, -23] Y: [-6, -5]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 33 \rangle X: [-24, -23] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 34 \rangle X: [-24, -23] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 35 \rangle X: [-24, -23] Y: [-3, -2]
```

```
Found Entropy: 0
\forall Window: 36 > X:[ -24 , -23 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 37 > X:[-24, -23] Y:[-1, 0]
Found Entropy: 0
<Window: 38 > X:[ -24 , -23 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window: } 39 \rangle \text{ X:} [-24, -23] \text{ Y:} [1, 2]
Found Entropy: 0
\langle \text{Window: } 40 \rangle \text{ X:} [-24, -23] \text{ Y:} [2, 3]
Found Entropy: 0
\{\text{Window: } 41 > X: [ -24 , -23 ] Y: [ 3 , 4 ] \}
Found Entropy: 0
\{\text{Window: } 42 > X:[-24, -23] Y:[4, 5]
Found Entropy: 0
\langle \text{Window}: 43 \rangle X: [-23, -22] Y: [-9, -8]
Found Entropy: 0
\{\text{Window}: 44 > X: [-23, -22] Y: [-8, -7] \}
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 45 \rangle X: [-23, -22] Y: [-7, -6]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 1.0397207708399179
\{\text{Window: } 46 > \text{X:} [-23, -22] \text{ Y:} [-6, -5] \}
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 47 \rangle X: [-23, -22] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window: } 48 \rangle \ \text{X:[} -23 , -22 \ ] \ \text{Y:[} -4 , -3 \ ]
Found Entropy: 0
\langle \text{Window}: 49 \rangle X: [-23, -22] Y: [-3, -2]
Found Entropy: 0
\{Window: 50 > X: [ -23 , -22 ] Y: [ -2 , -1 ]
Found Entropy: 0
<Window: 51 > X:[ -23 , -22 ] Y:[ -1 , 0 ]
Found Entropy: 0
\forall x \in X: [-23, -22] Y: [0, 1]
Found Entropy: 0
\langle \text{Window: 53} \rangle X: [-23, -22] Y: [1, 2]
Found Entropy: 0
\forall x \in X : [-23, -22] Y : [2, 3]
Found Entropy: 0
\langle \text{Window: } 55 \rangle \ \text{X:[} -23 \ , -22 \ ] \ \text{Y:[} 3 \ , 4 \ ]
Found Entropy: 0
```

```
<Window: 56 > X:[ -23 , -22 ] Y:[ 4 , 5 ]
Found Entropy: 0
\{\text{Window: 57} > X: [-22, -21] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window: 58} \rangle \text{ X:} [-22, -21] \text{ Y:} [-8, -7]
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 0.6931471805599453
\{Window: 59 \} X: [ -22 , -21 ] Y: [ -7 , -6 ]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
<Window: 60 > X:[ -22 , -21 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 61 \rangle X: [-22, -21] Y: [-5, -4]
Found Entropy: 0
\{\text{Window: } 62 > X:[-22, -21] Y:[-4, -3]
Found Entropy: 0
\{Window: 63 > X: [ -22 , -21 ] Y: [ -3 , -2 ]
Found Entropy: 0
\langle \text{Window}: 64 \rangle X: [-22, -21] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window: } 65 \rangle \ \text{X:[} -22 , -21 \ ] \ \text{Y:[} -1 , 0 \ ]
Found Entropy: 0
<Window: 66 > X:[ -22 , -21 ] Y:[ 0 , 1 ]
Found Entropy: 0
\{Window: 67 > X:[ -22 , -21 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 68 > X:[ -22 , -21 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 69 > X:[ -22 , -21 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window: 70} \rangle X: [-22, -21] Y: [4, 5]
Found Entropy: 0
\{Window: 71 > X:[ -21 , -20 ] Y:[ -9 , -8 ]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window: 72} \rangle \text{ X:[-21,-20] Y:[-8,-7]}
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 0.6365141682948128
\{\text{Window: 73} > \text{X:[-21,-20]} \text{ Y:[-7,-6]}
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
```

```
Found a sample of class: 0
Found Entropy: 0.6365141682948128
\{\text{Window: } 74 > \text{X:} [-21, -20] \text{ Y:} [-6, -5] \}
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 0.6931471805599453
\langle \text{Window}: 75 \rangle X: [-21, -20] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 76 \rangle X: [-21, -20] Y: [-4, -3]
Found Entropy: 0
\{Window: 77 > X:[ -21 , -20 ] Y:[ -3 , -2 ]
Found Entropy: 0
\{Window: 78 > X:[ -21 , -20 ] Y:[ -2 , -1 ]
Found Entropy: 0
\{\text{Window: 79} > \text{X:} [-21, -20] \text{ Y:} [-1, 0]
Found Entropy: 0
<Window: 80 > X:[ -21 , -20 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 81 > X:[ -21 , -20 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 82 > X:[ -21 , -20 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 83 > X:[ -21 , -20 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 84 > X:[ -21 , -20 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 85 \rangle \text{ X: [ } -20 \text{ , } -19 \text{ ] } \text{ Y: [ } -9 \text{ , } -8 \text{ ]}
Found Entropy: 0
<Window: 86 > X:[ -20 , -19 ] Y:[ -8 , -7 ]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window: 87} \rangle \text{ X: [ -20 , -19 ] Y: [ -7 , -6 ]}
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 1.0397207708399179
\langle \text{Window: 88} \rangle \text{ X: [ -20 , -19 ] Y: [ -6 , -5 ]}
Found Entropy: 0
\langle \text{Window: 89} \rangle \text{ X: [ -20 , -19 ] Y: [ -5 , -4 ]}
Found Entropy: 0
\langle \text{Window: } 90 \rangle \text{ X: [ } -20 \text{ , } -19 \text{ ] } \text{ Y: [ } -4 \text{ , } -3 \text{ ]}
Found Entropy: 0
\langle \text{Window: } 91 \rangle \ \text{X:[} -20 \ , -19 \ ] \ \text{Y:[} -3 \ , -2 \ ]
Found Entropy: 0
\langle \text{Window: } 92 \rangle \text{ X: [} -20 , -19 ] \text{ Y: [} -2 , -1 ]
Found Entropy: 0
\langle \text{Window: 93} \rangle X: [-20, -19] Y: [-1, 0]
```

```
Found Entropy: 0
\forall \text{Window: } 94 > X:[-20, -19] Y:[0, 1]
Found Entropy: 0
\{\text{Window: 95} > \text{X:[-20,-19]} \text{Y:[1,2]}
Found Entropy: 0
\langle \text{Window: 96} \rangle \text{ X:[-20,-19] Y:[2,3]}
Found Entropy: 0
\langle \text{Window: } 97 \rangle X:[-20, -19] Y:[3, 4]
Found Entropy: 0
<Window: 98 > X:[ -20 , -19 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 99 \rangle \ \text{X:} [ -19 , -18 ] \ \text{Y:} [ -9 , -8 ]
Found Entropy: 0
<Window: 100 > X:[ -19 , -18 ] Y:[ -8 , -7 ]
Found a sample of class: 2
Found Entropy: 0.0
\langle \text{Window}: 101 > X:[-19, -18] Y:[-7, -6]
Found Entropy: 0
\{Window: 102 > X:[-19, -18] Y:[-6, -5]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window: } 103 \rangle \ \text{X:[} -19 \ , -18 \ ] \ \text{Y:[} -5 \ , -4 \ ]
Found Entropy: 0
\langle \text{Window}: 104 \rangle X: [-19, -18] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 105 \rangle X: [-19, -18] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 106 \rangle X: [-19, -18] Y: [-2, -1]
Found Entropy: 0
<Window: 107 > X:[ -19 , -18 ] Y:[ -1 , 0 ]
Found Entropy: 0
\langle \text{Window: } 108 \rangle \ \text{X:[} -19 \ , -18 \ ] \ \text{Y:[} 0 \ , 1 \ ]
Found Entropy: 0
<Window: 109 > X:[ -19 , -18 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window: } 110 \rangle \ \text{X:[} -19 \ , -18 \ ] \ \text{Y:[} 2 \ , 3 \ ]
Found Entropy: 0
\langle \text{Window: } 111 \rangle \ \text{X:[} -19 \ , -18 \ ] \ \text{Y:[} 3 \ , 4 \ ]
Found Entropy: 0
<Window: 112 > X:[ -19 , -18 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 113 > X:[ -18 , -17 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 114 > X:[ -18 , -17 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window: } 115 \rangle \text{ X:[} -18 , -17 ] \text{ Y:[} -7 , -6 ]
Found Entropy: 0
\langle \text{Window}: 116 \rangle X: [-18, -17] Y: [-6, -5]
```

```
Found Entropy: 0
\langle \text{Window}: 117 > X:[-18, -17] Y:[-5, -4]
Found Entropy: 0
<Window: 118 > X:[ -18 , -17 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 119 \rangle \ \text{X:[} -18 \ , -17 \ ] \ \text{Y:[} -3 \ , -2 \ ]
Found Entropy: 0
\langle \text{Window: } 120 \rangle \text{ X:[} -18 , -17 ] \text{ Y:[} -2 , -1 ]
Found Entropy: 0
\langle \text{Window: } 121 \rangle \ \text{X:[} -18 \ , -17 \ ] \ \text{Y:[} -1 \ , 0 \ ]
Found Entropy: 0
<Window: 122 > X:[ -18 , -17 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 123 > X:[ -18 , -17 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window: } 124 \rangle \ \text{X:[} -18 \ , -17 \ ] \ \text{Y:[} 2 \ , 3 \ ]
Found Entropy: 0
\langle \text{Window: } 125 \rangle X:[-18, -17] Y:[3, 4]
Found Entropy: 0
<Window: 126 > X:[ -18 , -17 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 127 \rangle \text{ X:[} -17 , -16 ] \text{ Y:[} -9 , -8 ]
Found Entropy: 0
<Window: 128 > X:[ -17 , -16 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window}: 129 \rangle X: [-17, -16] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window: } 130 \rangle \text{ X:[} -17 , -16 ] \text{ Y:[} -6 , -5 ]
Found Entropy: 0
<Window: 131 > X:[ -17 , -16 ] Y:[ -5 , -4 ]
Found Entropy: 0
\forall Window: 132 > X:[ -17 , -16 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 133 > X:[ -17 , -16 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window: } 134 \rangle \ \text{X:[} -17 \ , -16 \ ] \ \text{Y:[} -2 \ , -1 \ ]
Found Entropy: 0
\langle \text{Window: } 135 \rangle \ \text{X:[} -17 \ , -16 \ ] \ \text{Y:[} -1 \ , 0 \ ]
Found Entropy: 0
<Window: 136 > X:[ -17 , -16 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 137 > X:[ -17 , -16 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 138 > X:[ -17 , -16 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 139 > X:[ -17 , -16 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window: } 140 \rangle \ \text{X:[} -17 \ , -16 \ ] \ \text{Y:[} 4 \ , 5 \ ]
```

```
Found Entropy: 0
\langle \text{Window: } 141 \rangle \ \text{X:[} -16 \ , -15 \ ] \ \text{Y:[} -9 \ , -8 \ ]
Found Entropy: 0
<Window: 142 > X:[ -16 , -15 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window}: 143 \rangle X: [-16, -15] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 144 \rangle X: [-16, -15] Y: [-6, -5]
Found Entropy: 0
<Window: 145 > X:[ -16 , -15 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 146 \rangle X: [-16, -15] Y: [-4, -3]
Found Entropy: 0
<Window: 147 > X:[ -16 , -15 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window: } 148 \rangle \ \text{X:[} -16 \ , -15 \ ] \ \text{Y:[} -2 \ , -1 \ ]
Found Entropy: 0
<Window: 149 > X:[ -16 , -15 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 150 > X:[ -16 , -15 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window: } 151 \rangle \ \text{X:[} -16 \ , -15 \ ] \ \text{Y:[} 1 \ , 2 \ ]
Found Entropy: 0
<Window: 152 > X:[ -16 , -15 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 153 > X:[ -16 , -15 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 154 > X:[ -16 , -15 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 155 \rangle X: [-15, -14] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 156 \rangle X: [-15, -14] Y: [-8, -7]
Found Entropy: 0
\{Window: 157 > X:[-15, -14] Y:[-7, -6]
Found Entropy: 0
<Window: 158 > X:[ -15 , -14 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 159 \rangle X: [-15, -14] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 160 \rangle X: [-15, -14] Y: [-4, -3]
Found Entropy: 0
<Window: 161 > X:[ -15 , -14 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window}: 162 \rangle X: [-15, -14] Y: [-2, -1]
Found Entropy: 0
<Window: 163 > X:[ -15 , -14 ] Y:[ -1 , 0 ]
Found Entropy: 0
\langle \text{Window: } 164 \rangle \text{ X:[} -15 , -14 ] \text{ Y:[} 0 , 1 ]
```

```
Found Entropy: 0
<Window: 165 > X:[ -15 , -14 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 166 > X:[ -15 , -14 ] Y:[ 2 , 3 ]
Found Entropy: 0
\langle \text{Window: } 167 \rangle \text{ X:[} -15 , -14 ] \text{ Y:[} 3 , 4 ]
Found Entropy: 0
<Window: 168 > X:[ -15 , -14 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 169 \rangle X: [-14, -13] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 170 > X:[-14, -13] Y:[-8, -7]
Found Entropy: 0
\forall X: [-14, -13] Y: [-7, -6]
Found Entropy: 0
\forall \text{Window: } 172 > X:[-14, -13] Y:[-6, -5]
Found Entropy: 0
\forall 173 > X:[-14, -13] Y:[-5, -4]
Found Entropy: 0
\langle \text{Window}: 174 \rangle X: [-14, -13] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 175 \rangle X: [-14, -13] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 176 \rangle X: [-14, -13] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 177 > X:[-14, -13] Y:[-1, 0]
Found Entropy: 0
\langle \text{Window: } 178 \rangle X:[-14, -13] Y:[0, 1]
Found Entropy: 0
\forall 179 > X:[-14, -13] Y:[1, 2]
Found Entropy: 0
\langle \text{Window: } 180 \rangle \ \text{X:[} -14 \ , -13 \ ] \ \text{Y:[} 2 \ , 3 \ ]
Found Entropy: 0
<Window: 181 > X:[ -14 , -13 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window: } 182 \rangle \ \text{X:[} -14 \ , -13 \ ] \ \text{Y:[} 4 \ , 5 \ ]
Found Entropy: 0
\langle \text{Window: } 183 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} -9 \ , -8 \ ]
Found Entropy: 0
\langle \text{Window: } 184 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} -8 \ , -7 \ ]
Found Entropy: 0
<Window: 185 > X:[ -13 , -12 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 186 > X:[ -13 , -12 ] Y:[ -6 , -5 ]
Found Entropy: 0
\forall Window: 187 > X:[ -13 , -12 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window: } 188 \rangle \ \text{X:[} -13 , -12 \ ] \ \text{Y:[} -4 , -3 \ ]
```

```
Found Entropy: 0
\langle \text{Window: } 189 \rangle \ \text{X:[} -13 , -12 \ ] \ \text{Y:[} -3 , -2 \ ]
Found Entropy: 0
<Window: 190 > X:[ -13 , -12 ] Y:[ -2 , -1 ]
Found Entropy: 0
\langle \text{Window: 191} \rangle X: [-13, -12] Y: [-1, 0]
Found Entropy: 0
\langle \text{Window: } 192 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} 0 \ , 1 \ ]
Found Entropy: 0
<Window: 193 > X:[ -13 , -12 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window: } 194 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} 2 \ , 3 \ ]
Found Entropy: 0
<Window: 195 > X:[ -13 , -12 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window: } 196 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} 4 \ , 5 \ ]
Found Entropy: 0
\forall \text{Window: } 197 > X:[-12, -11] Y:[-9, -8]
Found Entropy: 0
<Window: 198 > X:[ -12 , -11 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window: 199} \rangle X: [-12, -11] Y: [-7, -6]
Found Entropy: 0
<Window: 200 > X:[ -12 , -11 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 201 \rangle X: [-12, -11] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 202 \rangle X: [-12, -11] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 203 \rangle X: [-12, -11] Y: [-3, -2]
Found Entropy: 0
\forall \text{Window: } 204 > X:[-12, -11] Y:[-2, -1]
Found Entropy: 0
\{Window: 205 > X:[-12, -11] Y:[-1, 0]
Found Entropy: 0
\langle \text{Window: } 206 \rangle \ X:[-12, -11] \ Y:[0, 1]
Found Entropy: 0
\langle \text{Window: } 207 \rangle \text{ X:[} -12 , -11 ] \text{ Y:[} 1 , 2 ]
Found Entropy: 0
\langle \text{Window: } 208 \rangle \ \text{X:[} -12 \ , -11 \ ] \ \text{Y:[} 2 \ , 3 \ ]
Found Entropy: 0
<Window: 209 > X:[ -12 , -11 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 210 > X:[ -12 , -11 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle Window: 211 \rangle X:[-11, -10] Y:[-9, -8]
Found Entropy: 0
\langle \text{Window}: 212 \rangle X: [-11, -10] Y: [-8, -7]
```

```
Found Entropy: 0
<Window: 213 > X:[ -11 , -10 ] Y:[ -7 , -6 ]
Found Entropy: 0
\{Window: 214 > X:[-11, -10] Y:[-6, -5]
Found Entropy: 0
<Window: 215 > X:[ -11 , -10 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 216 \rangle X: [-11, -10] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 217 \rangle X: [-11, -10] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 218 \rangle X: [-11, -10] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window: } 219 \rangle X:[-11, -10] Y:[-1, 0]
Found Entropy: 0
\langle \text{Window: } 220 \rangle X:[-11, -10] Y:[0, 1]
Found Entropy: 0
\langle \text{Window: } 221 \rangle X:[-11, -10] Y:[1, 2]
Found Entropy: 0
<Window: 222 > X:[ -11 , -10 ] Y:[ 2 , 3 ]
Found Entropy: 0
\langle \text{Window: } 223 \rangle \ \text{X:[} -11 \ , -10 \ ] \ \text{Y:[} 3 \ , 4 \ ]
Found Entropy: 0
<Window: 224 > X:[ -11 , -10 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 225 > X:[ -10 , -9 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 226 \rangle X:[-10, -9] Y:[-8, -7]
Found Entropy: 0
\forall X: [-10, -9] \ Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 228 \rangle X: [-10, -9] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 229 \rangle X: [-10, -9] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window: } 230 \rangle \text{ X:[} -10 , -9 ] \text{ Y:[} -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 231 \rangle \text{ X:[} -10 , -9 ] \text{ Y:[} -3 , -2 ]
Found Entropy: 0
\langle \text{Window: } 232 \rangle \text{ X:[} -10 , -9 ] \text{ Y:[} -2 , -1 ]
Found Entropy: 0
<Window: 233 > X:[ -10 , -9 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 234 > X:[ -10 , -9 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 235 > X:[ -10 , -9 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 236 > X:[ -10 , -9 ] Y:[ 2 , 3 ]
```

```
Found Entropy: 0
\langle \text{Window: } 237 \rangle \text{ X:[} -10 , -9 ] \text{ Y:[} 3 , 4 ]
Found Entropy: 0
<Window: 238 > X:[ -10 , -9 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 239 \rangle \ \text{X:[} -9 \ , -8 \ ] \ \text{Y:[} -9 \ , -8 \ ]
Found Entropy: 0
\langle \text{Window: } 240 \rangle \text{ X:[} -9 , -8 ] \text{ Y:[} -8 , -7 ]
Found Entropy: 0
\langle \text{Window}: 241 > X:[-9, -8] Y:[-7, -6]
Found Entropy: 0
\langle \text{Window: } 242 \rangle \text{ X:[} -9 , -8 ] \text{ Y:[} -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 243 \rangle X: [-9, -8] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 244 \rangle X: [-9, -8] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 245 \rangle X: [-9, -8] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 246 \rangle X: [-9, -8] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window: } 247 \rangle \text{ X:[} -9 , -8 ] \text{ Y:[} -1 , 0 ]
Found Entropy: 0
\langle \text{Window}: 248 \rangle X: [-9, -8] Y: [0, 1]
Found Entropy: 0
\langle Window: 249 \rangle X: [-9, -8] Y: [1, 2]
Found Entropy: 0
\langle \text{Window}: 250 \rangle X:[-9, -8] Y:[2, 3]
Found Entropy: 0
<Window: 251 > X:[ -9 , -8 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 252 > X:[ -9 , -8 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 253 > X:[-8, -7] Y:[-9, -8]
Found Entropy: 0
\langle \text{Window}: 254 \rangle X: [-8, -7] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 255 \rangle X: [-8, -7] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 256 \rangle X: [-8, -7] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 257 \rangle X: [-8, -7] Y: [-5, -4]
Found Entropy: 0
<Window: 258 > X:[ -8 , -7 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 259 \rangle X: [-8, -7] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 260 \rangle X: [-8, -7] Y: [-2, -1]
```

```
Found Entropy: 0
<Window: 261 > X:[ -8 , -7 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 262 > X:[ -8 , -7 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 263 > X:[ -8 , -7 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window}: 264 \rangle X:[-8, -7] Y:[2, 3]
Found Entropy: 0
\langle \text{Window}: 265 \rangle X: [-8, -7] Y: [3, 4]
Found Entropy: 0
<Window: 266 > X:[ -8 , -7 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 267 \rangle X: [-7, -6] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 268 \rangle X: [-7, -6] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window: } 269 \rangle X:[-7,-6] Y:[-7,-6]
Found Entropy: 0
\langle \text{Window}: 270 \rangle X: [-7, -6] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window: } 271 \rangle X:[-7, -6] Y:[-5, -4]
Found Entropy: 0
\langle \text{Window}: 272 \rangle X: [-7, -6] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 273 \rangle X: [-7, -6] Y: [-3, -2]
Found Entropy: 0
\forall x = 1 
Found Entropy: 0
\forall x \in X : [ -7, -6] Y : [ -1, 0]
Found Entropy: 0
<Window: 276 > X:[ -7 , -6 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 277 > X:[-7, -6] Y:[1, 2]
Found Entropy: 0
<Window: 278 > X:[ -7 , -6 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 279 > X:[ -7 , -6 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 280 > X:[ -7 , -6 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 281 > X:[ -6 , -5 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window: } 282 \rangle X: [-6, -5] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window: 283} \rangle X: [-6, -5] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window: } 284 \rangle \text{ X:} [ -6 , -5 ] \text{ Y:} [ -6 , -5 ]
```

```
Found Entropy: 0
<Window: 285 > X:[ -6 , -5 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 286 > X:[ -6 , -5 ] Y:[ -4 , -3 ]
Found Entropy: 0
\forall X: [-6, -5] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window: } 288 \rangle \ \text{X:[} -6 \ , -5 \ ] \ \text{Y:[} -2 \ , -1 \ ]
Found Entropy: 0
\langle \text{Window}: 289 \rangle X: [-6, -5] Y: [-1, 0]
Found Entropy: 0
<Window: 290 > X:[ -6 , -5 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 291 \rangle X: [-6, -5] Y: [1, 2]
Found Entropy: 0
\langle \text{Window}: 292 \rangle X: [-6, -5] Y: [2, 3]
Found Entropy: 0
<Window: 293 > X:[ -6 , -5 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window}: 294 \rangle X: [-6, -5] Y: [4, 5]
Found Entropy: 0
\langle \text{Window}: 295 \rangle X: [-5, -4] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 296 \rangle X: [-5, -4] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 297 \rangle X: [-5, -4] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window: } 298 \rangle \ \text{X:[} -5 \ , -4 \ ] \ \text{Y:[} -6 \ , -5 \ ]
Found Entropy: 0
\langle \text{Window: } 299 \rangle X:[-5, -4] Y:[-5, -4]
Found Entropy: 0
<Window: 300 > X:[ -5 , -4 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 301 > X:[ -5 , -4 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window}: 302 \rangle X: [-5, -4] Y: [-2, -1]
Found Entropy: 0
<Window: 303 > X:[ -5 , -4 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 304 > X:[ -5 , -4 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 305 > X:[ -5 , -4 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 306 > X:[ -5 , -4 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 307 > X:[ -5 , -4 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 308 > X:[ -5 , -4 ] Y:[ 4 , 5 ]
```

```
Found Entropy: 0
<Window: 309 > X:[ -4 , -3 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 310 > X:[ -4 , -3 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window}: 311 > X: [ -4 , -3 ] Y: [ -7 , -6 ]
Found Entropy: 0
\langle \text{Window}: 312 \rangle X: [-4, -3] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 313 \rangle X: [-4, -3] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 314 \rangle X: [-4, -3] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 315 \rangle X: [-4, -3] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 316 \rangle X: [-4, -3] Y: [-2, -1]
Found Entropy: 0
<Window: 317 > X:[ -4 , -3 ] Y:[ -1 , 0 ]
Found Entropy: 0
\langle \text{Window}: 318 \rangle X: [-4, -3] Y: [0, 1]
Found Entropy: 0
\langle \text{Window}: 319 \rangle X: [-4, -3] Y: [1, 2]
Found Entropy: 0
\langle \text{Window}: 320 \rangle X: [-4, -3] Y: [2, 3]
Found Entropy: 0
\langle Window: 321 \rangle X: [-4, -3] Y: [3, 4]
Found Entropy: 0
\langle \text{Window}: 322 \rangle X: [-4, -3] Y: [4, 5]
Found Entropy: 0
<Window: 323 > X:[ -3 , -2 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 324 > X:[ -3 , -2 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 325 > X:[ -3 , -2 ] Y:[ -7 , -6 ]
Found Entropy: 0
\langle \text{Window}: 326 \rangle X: [-3, -2] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 327 \rangle X: [-3, -2] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 328 \rangle X: [-3, -2] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 329 \rangle X: [-3, -2] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 330 \rangle X: [-3, -2] Y: [-2, -1]
Found Entropy: 0
<Window: 331 > X:[ -3 , -2 ] Y:[ -1 , 0 ]
Found Entropy: 0
\langle \text{Window}: 332 \rangle X: [-3, -2] Y: [0, 1]
```

```
Found Entropy: 0
<Window: 333 > X:[ -3 , -2 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 334 > X:[-3, -2] Y:[2, 3]
Found Entropy: 0
<Window: 335 > X:[ -3 , -2 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 336 > X:[ -3 , -2 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 337 \rangle X: [-2, -1] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 338 \rangle X: [-2, -1] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window: } 339 \rangle \ \text{X:[} -2 \ , -1 \ ] \ \text{Y:[} -7 \ , -6 \ ]
Found Entropy: 0
\langle \text{Window}: 340 \rangle X: [-2, -1] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 341 \rangle X: [-2, -1] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 342 \rangle X: [-2, -1] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window: } 343 \rangle \ \text{X:[} -2 \ , -1 \ ] \ \text{Y:[} -3 \ , -2 \ ]
Found Entropy: 0
\langle \text{Window}: 344 \rangle X: [-2, -1] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 345 \rangle X: [-2, -1] Y: [-1, 0]
Found Entropy: 0
<Window: 346 > X:[ -2 , -1 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 347 > X:[-2, -1] Y:[1, 2]
Found Entropy: 0
<Window: 348 > X:[ -2 , -1 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 349 > X:[ -2 , -1 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 350 > X:[ -2 , -1 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 351 > X:[ -1 , 0 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window: } 352 \rangle \text{ X:} [-1, 0] \text{ Y:} [-8, -7]
Found Entropy: 0
<Window: 353 > X:[ -1 , 0 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 354 > X:[ -1 , 0 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 355 > X:[-1, 0] Y:[-5, -4]
Found Entropy: 0
<Window: 356 > X:[-1, 0] Y:[-4, -3]
```

```
Found Entropy: 0
\langle \text{Window}: 357 \rangle X: [-1, 0] Y: [-3, -2]
Found Entropy: 0
\{Window: 358 > X:[-1, 0] Y:[-2, -1]
Found Entropy: 0
<Window: 359 > X:[ -1 , 0 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 360 > X:[ -1 , 0 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 361 \rangle X: [-1, 0] Y: [1, 2]
Found Entropy: 0
\langle \text{Window}: 362 \rangle X: [-1, 0] Y: [2, 3]
Found Entropy: 0
<Window: 363 > X:[ -1 , 0 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 364 > X:[ -1 , 0 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 365 > X:[ 0 , 1 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 366 > X:[ 0 , 1 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 367 > X:[ 0 , 1 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 368 > X:[ 0 , 1 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 369 > X:[ 0 , 1 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 370 > X:[ 0 , 1 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 371 \rangle X:[0,1] Y:[-3,-2]
Found Entropy: 0
<Window: 372 > X:[0, 1] Y:[-2, -1]
Found Entropy: 0
<Window: 373 > X:[0, 1] Y:[-1, 0]
Found Entropy: 0
<Window: 374 > X:[ 0 , 1 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 375 > X:[ 0 , 1 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 376 > X:[ 0 , 1 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 377 > X:[ 0 , 1 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 378 > X:[ 0 , 1 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 379 \rangle X: [1, 2] Y: [-9, -8]
Found Entropy: 0
<Window: 380 > X:[1,2] Y:[-8,-7]
```

```
Found Entropy: 0
\langle \text{Window}: 381 \rangle X: [1, 2] Y: [-7, -6]
Found Entropy: 0
<Window: 382 > X:[1, 2] Y:[-6, -5]
Found Entropy: 0
<Window: 383 > X:[ 1 , 2 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 384 > X:[1,2] Y:[-4,-3]
Found Entropy: 0
\langle \text{Window}: 385 \rangle X: [1, 2] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 386 \rangle X: [1, 2] Y: [-2, -1]
Found Entropy: 0
<Window: 387 > X:[1,2] Y:[-1,0]
Found Entropy: 0
<Window: 388 > X:[ 1 , 2 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 389 \rangle X:[1,2] Y:[1,2]
Found Entropy: 0
<Window: 390 > X:[ 1 , 2 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 391 > X:[ 1 , 2 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle Window: 392 \rangle X:[1,2] Y:[4,5]
Found Entropy: 0
\langle Window: 393 \rangle X: [2, 3] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 394 \rangle X: [2, 3] Y: [-8, -7]
Found Entropy: 0
<Window: 395 > X:[ 2 , 3 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 396 > X:[ 2 , 3 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 397 > X:[ 2 , 3 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 398 > X:[ 2 , 3 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 399 \rangle X: [2, 3] Y: [-3, -2]
Found Entropy: 0
<Window: 400 > X:[ 2 , 3 ] Y:[ -2 , -1 ]
Found Entropy: 0
\langle Window: 401 \rangle X:[2,3]Y:[-1,0]
Found Entropy: 0
<Window: 402 > X:[2,3]Y:[0,1]
Found Entropy: 0
<Window: 403 > X:[ 2 , 3 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 404 > X:[2,3] Y:[2,3]
```

```
Found Entropy: 0
<Window: 405 > X:[2,3] Y:[3,4]
Found Entropy: 0
<Window: 406 > X:[2,3] Y:[4,5]
Found Entropy: 0
<Window: 407 > X:[3, 4] Y:[-9, -8]
Found Entropy: 0
<Window: 408 > X:[3,4] Y:[-8,-7]
Found Entropy: 0
<Window: 409 > X:[3,4] Y:[-7,-6]
Found Entropy: 0
<Window: 410 > X:[ 3 , 4 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 411 > X:[ 3 , 4 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 412 > X:[ 3 , 4 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 413 \rangle X: [3, 4] Y: [-3, -2]
Found Entropy: 0
\langle Window: 414 \rangle X: [3, 4] Y: [-2, -1]
Found Entropy: 0
<Window: 415 > X:[ 3 , 4 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 416 > X:[ 3 , 4 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 417 > X:[3, 4] Y:[1, 2]
Found Entropy: 0
<Window: 418 > X:[3, 4] Y:[2, 3]
Found Entropy: 0
<Window: 419 > X:[3,4] Y:[3,4]
Found Entropy: 0
<Window: 420 > X:[3, 4] Y:[4, 5]
Found Entropy: 0
\{\text{Window: } 421 > X: [4, 5] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 422 \rangle X: [4, 5] Y: [-8, -7]
Found Entropy: 0
<Window: 423 > X:[ 4 , 5 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 424 > X:[ 4 , 5 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 425 > X:[ 4 , 5 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 426 > X:[ 4 , 5 ] Y:[ -4 , -3 ]
Found Entropy: 0
\{\text{Window: } 427 > X:[4,5] Y:[-3,-2]
Found Entropy: 0
\{\text{Window: } 428 > X: [4, 5] Y: [-2, -1]
```

```
Found Entropy: 0
<Window: 429 > X:[4,5] Y:[-1,0]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 430 > X:[ 4 , 5 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 431 > X:[ 4 , 5 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 432 > X:[ 4 , 5 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 433 > X:[4,5] Y:[3,4]
Found Entropy: 0
<Window: 434 > X:[4,5] Y:[4,5]
Found Entropy: 0
<Window: 435 > X:[5,6] Y:[-9,-8]
Found Entropy: 0
<Window: 436 > X:[5,6] Y:[-8,-7]
Found Entropy: 0
<Window: 437 > X:[5, 6] Y:[-7, -6]
Found Entropy: 0
<Window: 438 > X:[5,6] Y:[-6,-5]
Found Entropy: 0
<Window: 439 > X:[5,6] Y:[-5,-4]
Found Entropy: 0
<Window: 440 > X:[5,6] Y:[-4,-3]
Found Entropy: 0
<Window: 441 > X:[ 5 , 6 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 442 > X:[5,6] Y:[-2,-1]
Found Entropy: 0
<Window: 443 > X:[5,6] Y:[-1,0]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 1.0986122886681096
<Window: 444 > X:[ 5 , 6 ] Y:[ 0 , 1 ]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 445 > X:[ 5 , 6 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 446 > X:[ 5 , 6 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 447 > X:[ 5 , 6 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 448 > X:[5,6] Y:[4,5]
Found Entropy: 0
<Window: 449 > X:[ 6 , 7 ] Y:[ -9 , -8 ]
```

```
Found Entropy: 0
<Window: 450 > X:[6, 7] Y:[-8, -7]
Found Entropy: 0
<Window: 451 > X:[6, 7] Y:[-7, -6]
Found Entropy: 0
<Window: 452 > X:[ 6 , 7 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 453 > X:[ 6 , 7 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 454 \rangle X: [6, 7] Y: [-4, -3]
Found Entropy: 0
<Window: 455 > X:[ 6 , 7 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 456 > X:[ 6 , 7 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 457 > X:[6,7] Y:[-1,0]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 1.0986122886681096
<Window: 458 > X:[6,7] Y:[0,1]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 1.0986122886681096
<Window: 459 > X:[ 6 , 7 ] Y:[ 1 , 2 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 460 > X:[ 6 , 7 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 461 > X:[ 6 , 7 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 462 > X:[ 6 , 7 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 463 > X:[7,8] Y:[-9,-8]
Found Entropy: 0
\langle Window: 464 \rangle X:[7,8] Y:[-8,-7]
Found Entropy: 0
<Window: 465 > X:[7,8] Y:[-7,-6]
Found Entropy: 0
<Window: 466 > X:[7,8] Y:[-6,-5]
Found Entropy: 0
<Window: 467 > X:[ 7 , 8 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 468 > X:[ 7 , 8 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 469 > X:[7,8] Y:[-3,-2]
Found Entropy: 0
```

```
<Window: 470 > X:[ 7 , 8 ] Y:[ -2 , -1 ]
Found a sample of class: 0
Found Entropy: 0.0
\{\text{Window: } 471 > X:[7,8] Y:[-1,0]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 472 > X:[ 7 , 8 ] Y:[ 0 , 1 ]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.5623351446188083
<Window: 473 > X:[ 7 , 8 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 474 > X:[7,8] Y:[2,3]
Found Entropy: 0
<Window: 475 > X:[7,8] Y:[3,4]
Found Entropy: 0
<Window: 476 > X:[7,8] Y:[4,5]
Found Entropy: 0
\langle \text{Window}: 477 \rangle X: [8, 9] Y: [-9, -8]
Found Entropy: 0
<Window: 478 > X:[8,9] Y:[-8,-7]
Found Entropy: 0
\langle Window: 479 \rangle X: [8, 9] Y: [-7, -6]
Found Entropy: 0
<Window: 480 > X:[8,9] Y:[-6,-5]
Found Entropy: 0
<Window: 481 > X:[8, 9] Y:[-5, -4]
Found Entropy: 0
<Window: 482 > X:[8,9] Y:[-4,-3]
Found Entropy: 0
\{Window: 483 > X:[8,9] Y:[-3,-2]
Found Entropy: 0
<Window: 484 > X:[8,9] Y:[-2,-1]
Found Entropy: 0
<Window: 485 > X:[8, 9] Y:[-1, 0]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.6365141682948128
<Window: 486 > X:[ 8 , 9 ] Y:[ 0 , 1 ]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 487 > X:[8, 9] Y:[1, 2]
Found a sample of class: 1
```

```
Found Entropy: 0.0
<Window: 488 > X:[ 8 , 9 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 489 > X:[8, 9] Y:[3, 4]
Found Entropy: 0
<Window: 490 > X:[ 8 , 9 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 491 > X:[ 9 , 10 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 492 > X:[ 9 , 10 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 493 > X:[ 9 , 10 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 494 > X:[ 9 , 10 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 495 > X:[ 9 , 10 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 496 > X:[ 9 , 10 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 497 > X:[9, 10] Y:[-3, -2]
Found Entropy: 0
<Window: 498 > X:[ 9 , 10 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 499 > X:[9, 10] Y:[-1, 0]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 500 > X:[ 9 , 10 ] Y:[ 0 , 1 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 501 > X:[ 9 , 10 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 502 > X:[ 9 , 10 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.6931471805599453
<Window: 503 > X:[ 9 , 10 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 504 > X:[ 9 , 10 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 505 > X:[ 10 , 11 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 506 > X:[ 10 , 11 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 507 > X:[ 10 , 11 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 508 > X:[ 10 , 11 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 509 \rangle \text{ X:} [ 10 , 11 ] \text{ Y:} [ -5 , -4 ]
```

```
Found Entropy: 0
<Window: 510 > X:[ 10 , 11 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 511 > X:[ 10 , 11 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 512 > X:[10, 11] Y:[-2, -1]
Found Entropy: 0
<Window: 513 > X:[ 10 , 11 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 514 > X:[ 10 , 11 ] Y:[ 0 , 1 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 515 > X:[ 10 , 11 ] Y:[ 1 , 2 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 516 > X:[ 10 , 11 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 517 > X:[ 10 , 11 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 518 > X:[ 10 , 11 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 519 > X:[ 11 , 12 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 520 > X:[ 11 , 12 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 521 > X:[ 11 , 12 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 522 > X:[ 11 , 12 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 523 > X:[ 11 , 12 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 524 > X:[ 11 , 12 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 525 \rangle X: [11, 12] Y: [-3, -2]
Found Entropy: 0
\{Window: 526 > X:[11, 12] Y:[-2, -1]
Found Entropy: 0
<Window: 527 > X:[11, 12] Y:[-1, 0]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 528 > X:[ 11 , 12 ] Y:[ 0 , 1 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 529 > X:[ 11 , 12 ] Y:[ 1 , 2 ]
```

```
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.6931471805599453
<Window: 530 > X:[ 11 , 12 ] Y:[ 2 , 3 ]
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 531 > X:[ 11 , 12 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 532 > X:[ 11 , 12 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: 533} \rangle X: [12, 13] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window: } 534 \rangle \text{ X:[ } 12 \text{ , } 13 \text{ ] } \text{ Y:[ } -8 \text{ , } -7 \text{ ]}
Found Entropy: 0
\langle \text{Window: 535} \rangle X: [12, 13] Y: [-7, -6]
Found Entropy: 0
<Window: 536 > X:[ 12 , 13 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 537 > X:[ 12 , 13 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window: 538} \rangle \text{ X:} [ 12 , 13 ] \text{ Y:} [ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: 539} \rangle X: [12, 13] Y: [-3, -2]
Found Entropy: 0
\forall \text{Window: } 540 > X:[12, 13] Y:[-2, -1]
Found Entropy: 0
<Window: 541 > X:[12, 13] Y:[-1, 0]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 542 > X:[ 12 , 13 ] Y:[ 0 , 1 ]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 1.0986122886681096
<Window: 543 > X:[ 12 , 13 ] Y:[ 1 , 2 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 544 > X:[ 12 , 13 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 545 > X:[ 12 , 13 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
```

```
Found Entropy: 0.6931471805599453
<Window: 546 > X:[ 12 , 13 ] Y:[ 4 , 5 ]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 1.0986122886681096
<Window: 547 > X:[ 13 , 14 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 548 > X:[ 13 , 14 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window: 549} \rangle X: [13, 14] Y: [-7, -6]
Found Entropy: 0
<Window: 550 > X:[ 13 , 14 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 551 \rangle X: [13, 14] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 552 \rangle X: [13, 14] Y: [-4, -3]
Found Entropy: 0
<Window: 553 > X:[ 13 , 14 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window}: 554 \rangle X: [13, 14] Y: [-2, -1]
Found Entropy: 0
<Window: 555 > X:[ 13 , 14 ] Y:[ -1 , 0 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 556 > X:[ 13 , 14 ] Y:[ 0 , 1 ]
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.6931471805599453
<Window: 557 > X:[ 13 , 14 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 558 > X:[ 13 , 14 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 559 > X:[ 13 , 14 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 560 > X:[ 13 , 14 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 561 > X:[14, 15] Y:[-9, -8]
Found Entropy: 0
<Window: 562 > X:[ 14 , 15 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 563 > X:[ 14 , 15 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 564 > X:[ 14 , 15 ] Y:[ -6 , -5 ]
Found Entropy: 0
```

```
<Window: 565 > X:[ 14 , 15 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 566 \rangle X: [ 14 , 15 ] Y: [ -4 , -3 ]
Found Entropy: 0
<Window: 567 > X:[ 14 , 15 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 568 > X:[ 14 , 15 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 569 > X:[14, 15] Y:[-1, 0]
Found Entropy: 0
<Window: 570 > X:[ 14 , 15 ] Y:[ 0 , 1 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 571 > X:[ 14 , 15 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 572 > X:[ 14 , 15 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 573 > X:[ 14 , 15 ] Y:[ 3 , 4 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 574 > X:[ 14 , 15 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 575 > X:[ 15 , 16 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 576 > X:[ 15 , 16 ] Y:[ -8 , -7 ]
Found Entropy: 0
\forall x \in X : [15, 16] Y : [-7, -6]
Found Entropy: 0
<Window: 578 > X:[ 15 , 16 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: 579} \rangle X: [15, 16] Y: [-5, -4]
Found Entropy: 0
<Window: 580 > X:[ 15 , 16 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 581 > X:[ 15 , 16 ] Y:[ -3 , -2 ]
Found Entropy: 0
\{Window: 582 > X: [15, 16] Y: [-2, -1] 
Found Entropy: 0
<Window: 583 > X:[ 15 , 16 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 584 > X:[15, 16] Y:[0, 1]
Found Entropy: 0
<Window: 585 > X:[ 15 , 16 ] Y:[ 1 , 2 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 586 > X:[ 15 , 16 ] Y:[ 2 , 3 ]
Found a sample of class: 1
Found a sample of class: 2
```

```
Found Entropy: 0.6931471805599453
<Window: 587 > X:[ 15 , 16 ] Y:[ 3 , 4 ]
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 588 > X:[ 15 , 16 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 589 > X:[ 16 , 17 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 590 > X:[ 16 , 17 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window: 591} \rangle X: [16, 17] Y: [-7, -6]
Found Entropy: 0
<Window: 592 > X:[ 16 , 17 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 593 > X:[ 16 , 17 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 594 > X:[ 16 , 17 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 595 > X:[ 16 , 17 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 596 > X:[ 16 , 17 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 597 > X:[ 16 , 17 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 598 > X:[ 16 , 17 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 599 > X:[ 16 , 17 ] Y:[ 1 , 2 ]
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 600 > X:[ 16 , 17 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 601 > X:[ 16 , 17 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.6365141682948128
<Window: 602 > X:[ 16 , 17 ] Y:[ 4 , 5 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 603 > X:[ 17 , 18 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 604 > X:[ 17 , 18 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 605 > X:[ 17 , 18 ] Y:[ -7 , -6 ]
Found Entropy: 0
```

```
<Window: 606 > X:[ 17 , 18 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 607 > X:[ 17 , 18 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 608 > X:[ 17 , 18 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 609 > X:[ 17 , 18 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 610 > X:[ 17 , 18 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 611 > X:[ 17 , 18 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 612 > X:[ 17 , 18 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 613 > X:[ 17 , 18 ] Y:[ 1 , 2 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 614 > X:[ 17 , 18 ] Y:[ 2 , 3 ]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.5623351446188083
<Window: 615 > X:[ 17 , 18 ] Y:[ 3 , 4 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 616 > X:[ 17 , 18 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 617 > X:[ 18 , 19 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 618 > X:[ 18 , 19 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 619 > X:[ 18 , 19 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 620 > X:[ 18 , 19 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 621 \rangle \text{ X:} [ 18 , 19 ] \text{ Y:} [ -5 , -4 ]
Found Entropy: 0
<Window: 622 > X:[ 18 , 19 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 623 > X:[ 18 , 19 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window: } 624 \rangle \text{ X:} [ 18 , 19 ] \text{ Y:} [ -2 , -1 ]
Found Entropy: 0
<Window: 625 > X:[ 18 , 19 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 626 > X:[ 18 , 19 ] Y:[ 0 , 1 ]
```

```
Found Entropy: 0
<Window: 627 > X:[ 18 , 19 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 628 > X:[ 18 , 19 ] Y:[ 2 , 3 ]
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 629 > X:[ 18 , 19 ] Y:[ 3 , 4 ]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.6365141682948128
<Window: 630 > X:[ 18 , 19 ] Y:[ 4 , 5 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 631 > X:[ 19 , 20 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 632 > X:[ 19 , 20 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 633 > X:[ 19 , 20 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 634 > X:[ 19 , 20 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 635 \rangle \text{ X:} [19, 20] \text{ Y:} [-5, -4]
Found Entropy: 0
<Window: 636 > X:[ 19 , 20 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 637 \rangle \text{ X:} [ 19 , 20 ] \text{ Y:} [ -3 , -2 ]
Found Entropy: 0
\langle \text{Window: } 638 \rangle \ \text{X:} [ 19 , 20 ] \ \text{Y:} [ -2 , -1 ]
Found Entropy: 0
<Window: 639 > X:[ 19 , 20 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 640 > X:[ 19 , 20 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 641 > X:[ 19 , 20 ] Y:[ 1 , 2 ]
Found Entropy: 0
\{\text{Window: } 642 > X: [19, 20] Y: [2, 3]
Found Entropy: 0
<Window: 643 > X:[ 19 , 20 ] Y:[ 3 , 4 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 644 > X:[ 19 , 20 ] Y:[ 4 , 5 ]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
```

```
Found a sample of class: 2
Found Entropy: 0.6730116670092565
<Window: 645 > X:[ 20 , 21 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 646 > X:[ 20 , 21 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window}: 647 \rangle X: [20, 21] Y: [-7, -6]
Found Entropy: 0
\{\text{Window: } 648 > X: [20, 21] Y: [-6, -5]
Found Entropy: 0
<Window: 649 > X:[ 20 , 21 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 650 > X:[ 20 , 21 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 651 \rangle \ \text{X:} [ 20 , 21 ] \ \text{Y:} [ -3 , -2 ]
Found Entropy: 0
<Window: 652 > X:[ 20 , 21 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 653 > X:[ 20 , 21 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 654 > X:[ 20 , 21 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 655 > X:[ 20 , 21 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 656 > X:[ 20 , 21 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 657 > X:[ 20 , 21 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 658 > X:[ 20 , 21 ] Y:[ 4 , 5 ]
Found a sample of class: 0
Found Entropy: 0.0
Total Count: 658
Expected Count: 658
OKAY: True
----Done--- 25.02940503282032
Done!
-26 21 -9 5
You Can use this matrix now.
X_{min} = -26
X_max = 21
Y_{min} = -9
Y_{max} = 5
And the Matrix Shape: 47 * 14
\{\text{Window: 1 > X:[-26,-25] Y:[-9,-8]}
Found Entropy: 0
\langle \text{Window}: 2 \rangle X: [-26, -25] Y: [-8, -7]
```

```
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.6931471805599453
\{\text{Window: 3 > X:[-26,-25] Y:[-7,-6]}
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.6931471805599453
\langle \text{Window}: 4 \rangle X: [-26, -25] Y: [-6, -5]
Found Entropy: 0
<Window: 5 > X:[ -26 , -25 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window: 6} \rangle \text{ X:[-26, -25] Y:[-4, -3]}
Found Entropy: 0
\langle \text{Window: 7 > X:[-26,-25] Y:[-3,-2]}
Found Entropy: 0
\{\text{Window: 8 > X: [-26, -25] Y: [-2, -1]}
Found Entropy: 0
\langle \text{Window: 9} \rangle X: [-26, -25] Y: [-1, 0]
Found Entropy: 0
\langle \text{Window}: 10 \rangle X: [-26, -25] Y: [0, 1]
Found Entropy: 0
<Window: 11 > X:[ -26 , -25 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window}: 12 \rangle X: [-26, -25] Y: [2, 3]
Found Entropy: 0
<Window: 13 > X:[ -26 , -25 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window: } 14 > X:[-26, -25] Y:[4, 5]
Found Entropy: 0
\langle \text{Window}: 15 \rangle X: [-25, -24] Y: [-9, -8]
Found Entropy: 0
<Window: 16 > X:[ -25 , -24 ] Y:[ -8 , -7 ]
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 0.6931471805599453
\langle \text{Window}: 17 > X: [-25, -24] Y: [-7, -6]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 1.0397207708399179
<Window: 18 > X:[ -25 , -24 ] Y:[ -6 , -5 ]
Found a sample of class: 0
Found Entropy: 0.0
\forall 19 > X:[-25, -24] Y:[-5, -4]
Found Entropy: 0
```

```
\langle \text{Window}: 20 \rangle X: [-25, -24] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 21 \rangle X: [-25, -24] Y: [-3, -2]
Found Entropy: 0
\{Window: 22 \} X: [ -25 , -24 ] Y: [ -2 , -1 ]
Found Entropy: 0
\langle \text{Window}: 23 \rangle X: [-25, -24] Y: [-1, 0]
Found Entropy: 0
\{\text{Window: } 24 > X: [-25, -24] \ Y: [0, 1]
Found Entropy: 0
\langle \text{Window}: 25 \rangle X: [-25, -24] Y: [1, 2]
Found Entropy: 0
\langle \text{Window}: 26 \rangle X: [-25, -24] Y: [2, 3]
Found Entropy: 0
<Window: 27 > X:[ -25 , -24 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window: 28} \rangle X: [-25, -24] Y: [4, 5]
Found Entropy: 0
\{Window: 29 \} X: [ -24 , -23 ] Y: [ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 30 \rangle X: [-24, -23] Y: [-8, -7]
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 0.6931471805599453
\langle \text{Window}: 31 \rangle X: [-24, -23] Y: [-7, -6]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 1.0397207708399179
\langle \text{Window}: 32 \rangle X: [-24, -23] Y: [-6, -5]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 33 \rangle X: [-24, -23] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 34 \rangle X: [-24, -23] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 35 \rangle X: [-24, -23] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 36 \rangle X: [-24, -23] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 37 \rangle X: [-24, -23] Y: [-1, 0]
Found Entropy: 0
<Window: 38 > X:[ -24 , -23 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window: } 39 \rangle \text{ X:[} -24 , -23 ] \text{ Y:[} 1 , 2 ]
Found Entropy: 0
\{\text{Window: } 40 > X: [ -24 , -23 ] Y: [ 2 , 3 ] \}
```

```
Found Entropy: 0
\forall x \in X : [-24, -23] Y : [3, 4]
Found Entropy: 0
\{\text{Window: } 42 > X: [-24, -23] Y: [4, 5]
Found Entropy: 0
<Window: 43 > X:[-23, -22] Y:[-9, -8]
Found Entropy: 0
\langle \text{Window}: 44 \rangle X: [-23, -22] Y: [-8, -7]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 45 \rangle X: [-23, -22] Y: [-7, -6]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 1.0397207708399179
\{\text{Window: } 46 > \text{X:} [-23, -22] \text{ Y:} [-6, -5] \}
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 0.6931471805599453
\langle \text{Window}: 47 \rangle X: [-23, -22] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window: } 48 \rangle \ \text{X:[} -23 \ , -22 \ ] \ \text{Y:[} -4 \ , -3 \ ]
Found Entropy: 0
\langle \text{Window}: 49 \rangle X: [-23, -22] Y: [-3, -2]
Found Entropy: 0
\{Window: 50 > X: [ -23 , -22 ] Y: [ -2 , -1 ]
Found Entropy: 0
\langle \text{Window}: 51 \rangle X: [-23, -22] Y: [-1, 0]
Found Entropy: 0
\langle \text{Window: 52} \rangle X:[-23, -22] Y:[0, 1]
Found Entropy: 0
\langle \text{Window: 53} \rangle X: [-23, -22] Y: [1, 2]
Found Entropy: 0
\langle \text{Window}: 54 \rangle X: [-23, -22] Y: [2, 3]
Found Entropy: 0
\{\text{Window: } 55 > X:[-23, -22] Y:[3, 4]
Found Entropy: 0
\{\text{Window: } 56 > \text{X:} [-23, -22] \text{ Y:} [4, 5]
Found Entropy: 0
\forall x \in X : [-22, -21] Y : [-9, -8]
Found Entropy: 0
\langle \text{Window}: 58 \rangle X: [-22, -21] Y: [-8, -7]
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.6931471805599453
\langle \text{Window}: 59 \rangle X: [-22, -21] Y: [-7, -6]
Found a sample of class: 0
```

```
Found a sample of class: 0
Found Entropy: 0.0
\{\text{Window: }60 > \text{X:}[-22, -21] \text{ Y:}[-6, -5]
Found Entropy: 0
\{Window: 61 > X:[ -22 , -21 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 62 \rangle X: [-22, -21] Y: [-4, -3]
Found Entropy: 0
\{Window: 63 > X: [ -22 , -21 ] Y: [ -3 , -2 ]
Found Entropy: 0
\{\text{Window: } 64 > \text{X:} [-22, -21] \text{ Y:} [-2, -1] \}
Found Entropy: 0
<Window: 65 > X:[ -22 , -21 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 66 > X:[ -22 , -21 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window: } 67 \rangle X:[-22, -21] Y:[1, 2]
Found Entropy: 0
<Window: 68 > X:[ -22 , -21 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 69 > X:[ -22 , -21 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window: 70} \rangle \text{ X:[-22, -21] Y:[4,5]}
Found Entropy: 0
\langle \text{Window}: 71 > X:[-21, -20] Y:[-9, -8]
Found a sample of class: 1
Found Entropy: 0.0
\langle \text{Window}: 72 \rangle X: [-21, -20] Y: [-8, -7]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 1.0986122886681096
\langle \text{Window}: 73 \rangle X: [-21, -20] Y: [-7, -6]
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 0.8675632284814612
\forall X: [-21, -20] Y: [-6, -5]
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 0.6931471805599453
\forall X: [-21, -20] \ Y: [-5, -4]
Found Entropy: 0
\forall Window: 76 > X:[ -21 , -20 ] Y:[ -4 , -3 ]
Found Entropy: 0
```

```
\langle \text{Window}: 77 > X: [-21, -20] Y: [-3, -2]
Found Entropy: 0
\{Window: 78 > X:[ -21 , -20 ] Y:[ -2 , -1 ]
Found Entropy: 0
\{Window: 79 \} X: [ -21 , -20 ] Y: [ -1 , 0 ]
Found Entropy: 0
\langle \text{Window: } 80 \rangle \text{ X: [} -21 , -20 ] \text{ Y: [} 0 , 1 ]
Found Entropy: 0
<Window: 81 > X:[ -21 , -20 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window}: 82 \rangle X: [-21, -20] Y: [2, 3]
Found Entropy: 0
<Window: 83 > X:[ -21 , -20 ] Y:[ 3 , 4 ]
Found Entropy: 0
\{\text{Window: 84} > \text{X:[-21,-20]} \text{Y:[4,5]}
Found Entropy: 0
\langle \text{Window: } 85 \rangle \text{ X: } [-20, -19] \text{ Y: } [-9, -8]
Found Entropy: 0
<Window: 86 > X:[ -20 , -19 ] Y:[ -8 , -7 ]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window: } 87 \rangle \text{ X: } [-20, -19] \text{ Y: } [-7, -6]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 1.0397207708399179
\langle \text{Window: 88} \rangle \text{ X: [ -20 , -19 ] Y: [ -6 , -5 ]}
Found Entropy: 0
\forall 1.89 > X:[-20, -19] Y:[-5, -4]
Found Entropy: 0
\langle \text{Window: } 90 \rangle \text{ X: [ } -20 \text{ , } -19 \text{ ] } \text{ Y: [ } -4 \text{ , } -3 \text{ ]}
Found Entropy: 0
\{Window: 91 > X:[ -20 , -19 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window: } 92 \rangle \ \text{X:[} -20 \ , -19 \ ] \ \text{Y:[} -2 \ , -1 \ ]
Found Entropy: 0
\langle \text{Window: } 93 \rangle \ \text{X:[} -20 \ , -19 \ ] \ \text{Y:[} -1 \ , 0 \ ]
Found Entropy: 0
\langle \text{Window: } 94 \rangle \text{ X:[} -20 , -19 ] \text{ Y:[} 0 , 1 ]
Found Entropy: 0
<Window: 95 > X:[ -20 , -19 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 96 > X:[ -20 , -19 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 97 > X:[ -20 , -19 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window: 98} \rangle X: [-20, -19] Y: [4, 5]
```

```
Found Entropy: 0
\forall 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.
Found Entropy: 0
\{Window: 100 > X:[-19, -18] Y:[-8, -7]
Found a sample of class: 1
Found Entropy: 0.0
\langle \text{Window}: 101 \rangle X: [-19, -18] Y: [-7, -6]
Found Entropy: 0
\{Window: 102 > X:[-19, -18] Y:[-6, -5]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 103 \rangle X: [-19, -18] Y: [-5, -4]
Found Entropy: 0
<Window: 104 > X:[ -19 , -18 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 105 \rangle \text{ X:[} -19 , -18 ] \text{ Y:[} -3 , -2 ]
Found Entropy: 0
\langle \text{Window}: 106 \rangle X: [-19, -18] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 107 > X:[-19, -18] Y:[-1, 0]
Found Entropy: 0
\langle \text{Window: } 108 \rangle \ \text{X:[} -19 \ , -18 \ ] \ \text{Y:[} 0 \ , 1 \ ]
Found Entropy: 0
<Window: 109 > X:[ -19 , -18 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window}: 110 \rangle X: [-19, -18] Y: [2, 3]
Found Entropy: 0
<Window: 111 > X:[ -19 , -18 ] Y:[ 3 , 4 ]
Found Entropy: 0
\forall X: [-19, -18] Y: [4, 5]
Found Entropy: 0
\langle \text{Window: } 113 \rangle \text{ X:[} -18 , -17 ] \text{ Y:[} -9 , -8 ]
Found Entropy: 0
<Window: 114 > X:[ -18 , -17 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window}: 115 \rangle X: [-18, -17] Y: [-7, -6]
Found Entropy: 0
<Window: 116 > X:[ -18 , -17 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 117 > X:[-18, -17] Y:[-5, -4]
Found Entropy: 0
<Window: 118 > X:[ -18 , -17 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 119 > X:[ -18 , -17 ] Y:[ -3 , -2 ]
Found Entropy: 0
\forall \text{Window: } 120 > X:[-18, -17] Y:[-2, -1]
Found Entropy: 0
\langle \text{Window: } 121 \rangle X:[-18, -17] Y:[-1, 0]
```

```
Found Entropy: 0
\forall \text{Window: } 122 > X:[-18, -17] Y:[0, 1]
Found Entropy: 0
<Window: 123 > X:[ -18 , -17 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window: } 124 \rangle \ \text{X:[} -18 \ , -17 \ ] \ \text{Y:[} 2 \ , 3 \ ]
Found Entropy: 0
\langle \text{Window: } 125 \rangle \text{ X:[} -18 , -17 ] \text{ Y:[} 3 , 4 ]
Found Entropy: 0
<Window: 126 > X:[ -18 , -17 ] Y:[ 4 , 5 ]
Found Entropy: 0
\forall Window: 127 > X:[ -17 , -16 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 128 \rangle X: [-17, -16] Y: [-8, -7]
Found Entropy: 0
\forall \text{Window: } 129 > X:[-17, -16] Y:[-7, -6]
Found Entropy: 0
\langle \text{Window}: 130 \rangle X: [-17, -16] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 131 \rangle X: [-17, -16] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window: } 132 \rangle \ \text{X:[} -17 \ , -16 \ ] \ \text{Y:[} -4 \ , -3 \ ]
Found Entropy: 0
\langle \text{Window}: 133 \rangle X: [-17, -16] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 134 \rangle X: [-17, -16] Y: [-2, -1]
Found Entropy: 0
<Window: 135 > X:[ -17 , -16 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 136 > X:[ -17 , -16 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window: } 137 \rangle X:[-17, -16] Y:[1, 2]
Found Entropy: 0
<Window: 138 > X:[ -17 , -16 ] Y:[ 2 , 3 ]
Found Entropy: 0
\langle \text{Window: } 139 \rangle \ \text{X:[} -17 \ , -16 \ ] \ \text{Y:[} 3 \ , 4 \ ]
Found Entropy: 0
\langle \text{Window: } 140 \rangle \ \text{X:[} -17 \ , -16 \ ] \ \text{Y:[} 4 \ , 5 \ ]
Found Entropy: 0
\langle \text{Window: } 141 \rangle \ \text{X:[} -16 \ , -15 \ ] \ \text{Y:[} -9 \ , -8 \ ]
Found Entropy: 0
<Window: 142 > X:[ -16 , -15 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 143 > X:[ -16 , -15 ] Y:[ -7 , -6 ]
Found Entropy: 0
\langle \text{Window}: 144 \rangle X: [-16, -15] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 145 \rangle X: [-16, -15] Y: [-5, -4]
```

```
Found Entropy: 0
<Window: 146 > X:[ -16 , -15 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 147 > X:[ -16 , -15 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 148 > X:[ -16 , -15 ] Y:[ -2 , -1 ]
Found Entropy: 0
\langle \text{Window: } 149 \rangle \ \text{X:[} -16 \ , -15 \ ] \ \text{Y:[} -1 \ , 0 \ ]
Found Entropy: 0
<Window: 150 > X:[ -16 , -15 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 151 > X:[ -16 , -15 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 152 > X:[ -16 , -15 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 153 > X:[ -16 , -15 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 154 > X:[ -16 , -15 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 155 > X:[ -15 , -14 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 156 > X:[ -15 , -14 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window}: 157 \rangle X: [-15, -14] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 158 \rangle X: [-15, -14] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 159 \rangle X: [-15, -14] Y: [-5, -4]
Found Entropy: 0
<Window: 160 > X:[ -15 , -14 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 161 \rangle X: [-15, -14] Y: [-3, -2]
Found Entropy: 0
\{Window: 162 > X:[-15, -14] Y:[-2, -1]
Found Entropy: 0
\langle \text{Window}: 163 \rangle X: [-15, -14] Y: [-1, 0]
Found Entropy: 0
<Window: 164 > X:[ -15 , -14 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 165 > X:[ -15 , -14 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 166 > X:[ -15 , -14 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 167 > X:[ -15 , -14 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 168 > X:[ -15 , -14 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 169 \rangle X: [-14, -13] Y: [-9, -8]
```

```
Found Entropy: 0
<Window: 170 > X:[ -14 , -13 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 171 > X:[ -14 , -13 ] Y:[ -7 , -6 ]
Found Entropy: 0
\forall X: [-14, -13] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 173 \rangle X: [-14, -13] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 174 \rangle X: [-14, -13] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 175 \rangle X: [-14, -13] Y: [-3, -2]
Found Entropy: 0
\forall \text{Window: } 176 > X:[-14, -13] Y:[-2, -1]
Found Entropy: 0
<Window: 177 > X:[ -14 , -13 ] Y:[ -1 , 0 ]
Found Entropy: 0
\langle \text{Window: } 178 \rangle X:[-14, -13] Y:[0, 1]
Found Entropy: 0
<Window: 179 > X:[ -14 , -13 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window: } 180 \rangle \ \text{X:[} -14 \ , -13 \ ] \ \text{Y:[} 2 \ , 3 \ ]
Found Entropy: 0
<Window: 181 > X:[ -14 , -13 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window}: 182 \rangle X: [-14, -13] Y: [4, 5]
Found Entropy: 0
\forall \text{Window: } 183 > X:[-13, -12] Y:[-9, -8]
Found Entropy: 0
\langle \text{Window}: 184 \rangle X: [-13, -12] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window: } 185 \rangle \text{ X:[} -13 , -12 ] \text{ Y:[} -7 , -6 ]
Found Entropy: 0
\{Window: 186 > X:[-13, -12] Y:[-6, -5]
Found Entropy: 0
\langle \text{Window: } 187 \rangle \text{ X:[} -13 , -12 ] \text{ Y:[} -5 , -4 ]
Found Entropy: 0
\langle \text{Window: } 188 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} -4 \ , -3 \ ]
Found Entropy: 0
\langle \text{Window: } 189 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} -3 \ , -2 \ ]
Found Entropy: 0
<Window: 190 > X:[ -13 , -12 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 191 > X:[ -13 , -12 ] Y:[ -1 , 0 ]
Found Entropy: 0
\langle \text{Window: } 192 \rangle X:[-13, -12] Y:[0, 1]
Found Entropy: 0
\langle \text{Window: } 193 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} 1 \ , 2 \ ]
```

```
Found Entropy: 0
\langle \text{Window: } 194 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} 2 \ , 3 \ ]
Found Entropy: 0
\forall 195 > X:[-13, -12] Y:[3, 4]
Found Entropy: 0
\langle \text{Window: } 196 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} 4 \ , 5 \ ]
Found Entropy: 0
\langle \text{Window: } 197 \rangle \ \text{X:[} -12 , -11 \ ] \ \text{Y:[} -9 , -8 \ ]
Found Entropy: 0
<Window: 198 > X:[ -12 , -11 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window: } 199 \rangle \ \text{X:[} -12 , -11 \ ] \ \text{Y:[} -7 , -6 \ ]
Found Entropy: 0
<Window: 200 > X:[ -12 , -11 ] Y:[ -6 , -5 ]
Found Entropy: 0
\forall X:[-12, -11] Y:[-5, -4]
Found Entropy: 0
\langle \text{Window}: 202 \rangle X: [-12, -11] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 203 \rangle X: [-12, -11] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 204 \rangle X: [-12, -11] Y: [-2, -1]
Found Entropy: 0
<Window: 205 > X:[ -12 , -11 ] Y:[ -1 , 0 ]
Found Entropy: 0
\langle \text{Window}: 206 \rangle X: [-12, -11] Y: [0, 1]
Found Entropy: 0
\langle \text{Window: } 207 \rangle X:[-12, -11] Y:[1, 2]
Found Entropy: 0
\forall X: [-12, -11] Y: [2, 3]
Found Entropy: 0
\langle \text{Window: } 209 \rangle \ X:[ -12 , -11 ] \ Y:[ 3 , 4 ]
Found Entropy: 0
\{Window: 210 > X:[-12, -11] Y:[4, 5]
Found Entropy: 0
<Window: 211 > X:[ -11 , -10 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 212 > X:[ -11 , -10 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window}: 213 \rangle X: [-11, -10] Y: [-7, -6]
Found Entropy: 0
<Window: 214 > X:[ -11 , -10 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 215 \rangle X: [-11, -10] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 216 \rangle X: [-11, -10] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 217 > X:[-11, -10] Y:[-3, -2]
```

```
Found Entropy: 0
<Window: 218 > X:[ -11 , -10 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 219 > X:[ -11 , -10 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 220 > X:[ -11 , -10 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 221 > X:[ -11 , -10 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 222 > X:[ -11 , -10 ] Y:[ 2 , 3 ]
Found Entropy: 0
\langle \text{Window: } 223 \rangle X:[-11, -10] Y:[3, 4]
Found Entropy: 0
<Window: 224 > X:[ -11 , -10 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 225 \rangle X: [-10, -9] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 226 \rangle X:[-10, -9] Y:[-8, -7]
Found Entropy: 0
<Window: 227 > X:[ -10 , -9 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 228 > X:[ -10 , -9 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 229 > X:[ -10 , -9 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 230 \rangle X: [-10, -9] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 231 \rangle X: [-10, -9] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 232 \rangle X:[-10, -9] Y:[-2, -1]
Found Entropy: 0
\langle \text{Window: } 233 \rangle X: [-10, -9] Y: [-1, 0]
Found Entropy: 0
<Window: 234 > X:[ -10 , -9 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 235 > X:[ -10 , -9 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 236 > X:[ -10 , -9 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 237 > X:[ -10 , -9 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 238 > X:[ -10 , -9 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 239 \rangle X:[-9, -8] Y:[-9, -8]
Found Entropy: 0
\langle \text{Window: } 240 \rangle \text{ X:[} -9 , -8 ] \text{ Y:[} -8 , -7 ]
Found Entropy: 0
\langle \text{Window: } 241 \rangle \ \text{X:[} -9 \ , -8 \ ] \ \text{Y:[} -7 \ , -6 \ ]
```

```
Found Entropy: 0
\langle \text{Window: } 242 \rangle \text{ X:[} -9 , -8 ] \text{ Y:[} -6 , -5 ]
Found Entropy: 0
<Window: 243 > X:[ -9 , -8 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 244 \rangle X: [-9, -8] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window: } 245 \rangle \ \text{X:[} -9 \ , -8 \ ] \ \text{Y:[} -3 \ , -2 \ ]
Found Entropy: 0
\langle \text{Window}: 246 \rangle X: [-9, -8] Y: [-2, -1]
Found Entropy: 0
<Window: 247 > X:[-9, -8] Y:[-1, 0]
Found Entropy: 0
<Window: 248 > X:[ -9 , -8 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 249 \rangle X:[-9, -8] Y:[1, 2]
Found Entropy: 0
<Window: 250 > X:[ -9 , -8 ] Y:[ 2 , 3 ]
Found Entropy: 0
\langle \text{Window}: 251 \rangle X: [-9, -8] Y: [3, 4]
Found Entropy: 0
<Window: 252 > X:[ -9 , -8 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 253 \rangle X: [-8, -7] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 254 \rangle X: [-8, -7] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 255 \rangle X: [-8, -7] Y: [-7, -6]
Found Entropy: 0
<Window: 256 > X:[ -8 , -7 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 257 > X:[-8, -7] Y:[-5, -4]
Found Entropy: 0
\forall Window: 258 > X:[ -8 , -7 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 259 \rangle X: [-8, -7] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 260 \rangle X: [-8, -7] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window: 261} \rangle X: [-8, -7] Y: [-1, 0]
Found Entropy: 0
<Window: 262 > X:[ -8 , -7 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 263 > X:[ -8 , -7 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 264 > X:[ -8 , -7 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 265 > X:[ -8 , -7 ] Y:[ 3 , 4 ]
```

```
Found Entropy: 0
<Window: 266 > X:[ -8 , -7 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 267 > X:[-7, -6] Y:[-9, -8]
Found Entropy: 0
<Window: 268 > X:[ -7 , -6 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window: } 269 \rangle \ \text{X:[} -7 \ , -6 \ ] \ \text{Y:[} -7 \ , -6 \ ]
Found Entropy: 0
\langle \text{Window}: 270 \rangle X: [-7, -6] Y: [-6, -5]
Found Entropy: 0
\forall x \in X : [-7, -6] Y : [-5, -4]
Found Entropy: 0
\langle \text{Window}: 272 \rangle X:[-7,-6] Y:[-4,-3]
Found Entropy: 0
\langle \text{Window}: 273 \rangle X: [-7, -6] Y: [-3, -2]
Found Entropy: 0
\forall x = 1 
Found Entropy: 0
\langle \text{Window}: 275 \rangle X: [-7, -6] Y: [-1, 0]
Found Entropy: 0
<Window: 276 > X:[ -7 , -6 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 277 > X:[-7,-6] Y:[1,2]
Found Entropy: 0
\langle Window: 278 \rangle X: [-7, -6] Y: [2, 3]
Found Entropy: 0
<Window: 279 > X:[ -7 , -6 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 280 > X:[ -7 , -6 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 281 > X:[ -6 , -5 ] Y:[ -9 , -8 ]
Found Entropy: 0
\forall X: [-6, -5] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window: 283} \rangle X: [-6, -5] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window: } 284 \rangle \ \text{X:[} -6 , -5 \ ] \ \text{Y:[} -6 , -5 \ ]
Found Entropy: 0
\langle \text{Window: } 285 \rangle \ \text{X:[} -6 \ , -5 \ ] \ \text{Y:[} -5 \ , -4 \ ]
Found Entropy: 0
\langle \text{Window}: 286 \rangle X: [-6, -5] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window: } 287 \rangle \text{ X:[} -6 , -5 ] \text{ Y:[} -3 , -2 ]
Found Entropy: 0
\langle \text{Window: 288} \rangle X: [-6, -5] Y: [-2, -1]
Found Entropy: 0
<Window: 289 > X:[ -6 , -5 ] Y:[ -1 , 0 ]
```

```
Found Entropy: 0
<Window: 290 > X:[ -6 , -5 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 291 > X:[ -6 , -5 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window}: 292 \rangle X: [-6, -5] Y: [2, 3]
Found Entropy: 0
<Window: 293 > X:[ -6 , -5 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window}: 294 \rangle X: [-6, -5] Y: [4, 5]
Found Entropy: 0
\langle \text{Window: } 295 \rangle X: [ -5 , -4 ] Y: [ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 296 \rangle X: [-5, -4] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window: } 297 \rangle X:[-5, -4] Y:[-7, -6]
Found Entropy: 0
\langle \text{Window: } 298 \rangle \ \text{X:[} -5 \ , -4 \ ] \ \text{Y:[} -6 \ , -5 \ ]
Found Entropy: 0
\langle \text{Window}: 299 \rangle X: [-5, -4] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window: } 300 \rangle \text{ X:} [ -5 , -4 ] \text{ Y:} [ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 301 \rangle X: [-5, -4] Y: [-3, -2]
Found Entropy: 0
\{Window: 302 \} X: [ -5 , -4 ] Y: [ -2 , -1 ]
Found Entropy: 0
<Window: 303 > X:[-5, -4] Y:[-1, 0]
Found Entropy: 0
<Window: 304 > X:[ -5 , -4 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 305 > X:[ -5 , -4 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 306 > X:[-5, -4] Y:[2, 3]
Found Entropy: 0
<Window: 307 > X:[ -5 , -4 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 308 > X:[ -5 , -4 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 309 \rangle \ \text{X:} [ -4 , -3 ] \ \text{Y:} [ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 310 \rangle X: [-4, -3] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 311 \rangle X: [-4, -3] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 312 \rangle X: [-4, -3] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 313 \rangle X: [-4, -3] Y: [-5, -4]
```

```
Found Entropy: 0
<Window: 314 > X:[ -4 , -3 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 315 > X:[ -4 , -3 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window}: 316 \rangle X: [-4, -3] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window: } 317 \rangle \text{ X: [ } -4 \text{ , } -3 \text{ ] } \text{ Y: [ } -1 \text{ , } 0 \text{ ]}
Found Entropy: 0
<Window: 318 > X:[ -4 , -3 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 319 \rangle X: [-4, -3] Y: [1, 2]
Found Entropy: 0
\langle \text{Window}: 320 \rangle X: [-4, -3] Y: [2, 3]
Found Entropy: 0
\langle \text{Window}: 321 \rangle X: [-4, -3] Y: [3, 4]
Found Entropy: 0
\langle \text{Window}: 322 \rangle X: [-4, -3] Y: [4, 5]
Found Entropy: 0
\langle \text{Window}: 323 \rangle X: [-3, -2] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 324 \rangle X: [-3, -2] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 325 \rangle X: [-3, -2] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 326 \rangle X: [-3, -2] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 327 \rangle X: [-3, -2] Y: [-5, -4]
Found Entropy: 0
<Window: 328 > X:[ -3 , -2 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 329 \rangle X:[-3,-2] Y:[-3,-2]
Found Entropy: 0
<Window: 330 > X:[-3, -2] Y:[-2, -1]
Found Entropy: 0
\langle \text{Window: } 331 \rangle \ \text{X:[} -3 \ , -2 \ ] \ \text{Y:[} -1 \ , 0 \ ]
Found Entropy: 0
<Window: 332 > X:[ -3 , -2 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 333 \rangle X: [-3, -2] Y: [1, 2]
Found Entropy: 0
<Window: 334 > X:[ -3 , -2 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 335 > X:[ -3 , -2 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 336 > X:[ -3 , -2 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 337 \rangle \text{ X:} [-2, -1] \text{ Y:} [-9, -8]
```

```
Found Entropy: 0
\langle \text{Window}: 338 \rangle X: [-2, -1] Y: [-8, -7]
Found Entropy: 0
\forall X: [-2, -1] \ Y: [-7, -6]
Found Entropy: 0
<Window: 340 > X:[ -2 , -1 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 341 \rangle \ \text{X:[} -2 \ , -1 \ ] \ \text{Y:[} -5 \ , -4 \ ]
Found Entropy: 0
\langle \text{Window}: 342 \rangle X: [-2, -1] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 343 \rangle X: [-2, -1] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 344 \rangle X: [-2, -1] Y: [-2, -1]
Found Entropy: 0
<Window: 345 > X:[-2, -1] Y:[-1, 0]
Found Entropy: 0
<Window: 346 > X:[ -2 , -1 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 347 > X: [-2, -1] Y: [1, 2]
Found Entropy: 0
\langle \text{Window}: 348 \rangle X: [-2, -1] Y: [2, 3]
Found Entropy: 0
\langle \text{Window}: 349 \rangle X: [-2, -1] Y: [3, 4]
Found Entropy: 0
\langle \text{Window}: 350 \rangle X: [-2, -1] Y: [4, 5]
Found Entropy: 0
<Window: 351 > X:[ -1 , 0 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 352 \rangle X: [-1, 0] Y: [-8, -7]
Found Entropy: 0
<Window: 353 > X:[-1, 0] Y:[-7, -6]
Found Entropy: 0
<Window: 354 > X:[-1, 0] Y:[-6, -5]
Found Entropy: 0
<Window: 355 > X:[ -1 , 0 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 356 > X:[ -1 , 0 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 357 \rangle \text{ X: [ -1 , 0 ] Y: [ -3 , -2 ]}
Found Entropy: 0
\langle \text{Window}: 358 \rangle X: [-1, 0] Y: [-2, -1]
Found Entropy: 0
<Window: 359 > X:[ -1 , 0 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 360 > X:[ -1 , 0 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 361 > X:[ -1 , 0 ] Y:[ 1 , 2 ]
```

```
Found Entropy: 0
<Window: 362 > X:[ -1 , 0 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 363 > X:[-1, 0] Y:[3, 4]
Found Entropy: 0
<Window: 364 > X:[ -1 , 0 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 365 > X:[ 0 , 1 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 366 > X:[ 0 , 1 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 367 > X:[ 0 , 1 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 368 > X:[ 0 , 1 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 369 > X:[ 0 , 1 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 370 > X:[ 0 , 1 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 371 > X:[0,1] Y:[-3,-2]
Found Entropy: 0
\langle \text{Window}: 372 \rangle X:[0,1] Y:[-2,-1]
Found Entropy: 0
<Window: 373 > X:[0, 1] Y:[-1, 0]
Found Entropy: 0
<Window: 374 > X:[ 0 , 1 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 375 > X:[ 0 , 1 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 376 > X:[0, 1] Y:[2, 3]
Found Entropy: 0
<Window: 377 > X:[0, 1] Y:[3, 4]
Found Entropy: 0
<Window: 378 > X:[0,1] Y:[4,5]
Found Entropy: 0
<Window: 379 > X:[ 1 , 2 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 380 > X:[1,2] Y:[-8,-7]
Found Entropy: 0
<Window: 381 > X:[1,2] Y:[-7,-6]
Found Entropy: 0
<Window: 382 > X:[ 1 , 2 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 383 > X:[1,2] Y:[-5,-4]
Found Entropy: 0
<Window: 384 > X:[1,2] Y:[-4,-3]
Found Entropy: 0
\langle \text{Window}: 385 \rangle X: [1, 2] Y: [-3, -2]
```

```
Found Entropy: 0
<Window: 386 > X:[ 1 , 2 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 387 > X:[1, 2] Y:[-1, 0]
Found Entropy: 0
<Window: 388 > X:[ 1 , 2 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 389 > X:[ 1 , 2 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 390 > X:[ 1 , 2 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 391 > X:[ 1 , 2 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 392 > X:[ 1 , 2 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 393 \rangle X: [2, 3] Y: [-9, -8]
Found Entropy: 0
<Window: 394 > X:[ 2 , 3 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window}: 395 \rangle X: [2, 3] Y: [-7, -6]
Found Entropy: 0
<Window: 396 > X:[ 2 , 3 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 397 \rangle X: [2, 3] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 398 \rangle X: [2, 3] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 399 \rangle X: [2, 3] Y: [-3, -2]
Found Entropy: 0
<Window: 400 > X:[ 2 , 3 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 401 > X:[2,3] Y:[-1,0]
Found Entropy: 0
<Window: 402 > X:[2,3] Y:[0,1]
Found Entropy: 0
<Window: 403 > X:[ 2 , 3 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 404 > X:[2,3] Y:[2,3]
Found Entropy: 0
<Window: 405 > X:[ 2 , 3 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 406 > X:[ 2 , 3 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 407 > X:[3, 4] Y:[-9, -8]
Found Entropy: 0
<Window: 408 > X:[3,4] Y:[-8,-7]
Found Entropy: 0
<Window: 409 > X:[3,4] Y:[-7,-6]
```

```
Found Entropy: 0
<Window: 410 > X:[3, 4] Y:[-6, -5]
Found Entropy: 0
<Window: 411 > X:[ 3 , 4 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 412 > X:[ 3 , 4 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 413 > X:[3, 4] Y:[-3, -2]
Found Entropy: 0
\langle \text{Window}: 414 \rangle X:[3,4] Y:[-2,-1]
Found Entropy: 0
<Window: 415 > X:[ 3 , 4 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 416 > X:[ 3 , 4 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 417 > X:[3, 4] Y:[1, 2]
Found Entropy: 0
<Window: 418 > X:[3, 4] Y:[2, 3]
Found Entropy: 0
<Window: 419 > X:[ 3 , 4 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 420 > X:[ 3 , 4 ] Y:[ 4 , 5 ]
Found Entropy: 0
\{\text{Window: } 421 > X: [4, 5] Y: [-9, -8]
Found Entropy: 0
\{\text{Window}: 422 > X: [4, 5] Y: [-8, -7] \}
Found Entropy: 0
\{\text{Window: } 423 > X: [4, 5] Y: [-7, -6]
Found Entropy: 0
<Window: 424 > X:[4,5] Y:[-6,-5]
Found Entropy: 0
<Window: 425 > X:[ 4 , 5 ] Y:[ -5 , -4 ]
Found Entropy: 0
\{\text{Window: } 426 > X: [4, 5] Y: [-4, -3]
Found Entropy: 0
<Window: 427 > X:[ 4 , 5 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window}: 428 \rangle X: [4, 5] Y: [-2, -1]
Found Entropy: 0
<Window: 429 > X:[ 4 , 5 ] Y:[ -1 , 0 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 430 > X:[ 4 , 5 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 431 > X:[4,5] Y:[1,2]
Found Entropy: 0
<Window: 432 > X:[ 4 , 5 ] Y:[ 2 , 3 ]
Found Entropy: 0
```

```
<Window: 433 > X:[4,5] Y:[3,4]
Found Entropy: 0
<Window: 434 > X:[4,5] Y:[4,5]
Found Entropy: 0
<Window: 435 > X:[5,6] Y:[-9,-8]
Found Entropy: 0
<Window: 436 > X:[ 5 , 6 ] Y:[ -8 , -7 ]
Found Entropy: 0
\{\text{Window: } 437 > \text{X:} [5, 6] \text{ Y:} [-7, -6]
Found Entropy: 0
\langle \text{Window}: 438 \rangle X: [5, 6] Y: [-6, -5]
Found Entropy: 0
<Window: 439 > X:[5,6] Y:[-5,-4]
Found Entropy: 0
<Window: 440 > X:[5,6] Y:[-4,-3]
Found Entropy: 0
<Window: 441 > X:[5,6] Y:[-3,-2]
Found Entropy: 0
<Window: 442 > X:[5, 6] Y:[-2, -1]
Found Entropy: 0
<Window: 443 > X:[5,6] Y:[-1,0]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.6365141682948128
<Window: 444 > X:[5,6] Y:[0,1]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 445 > X:[ 5 , 6 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 446 > X:[5,6] Y:[2,3]
Found Entropy: 0
<Window: 447 > X:[5,6] Y:[3,4]
Found Entropy: 0
<Window: 448 > X:[ 5 , 6 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 449 > X:[ 6 , 7 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 450 > X:[ 6 , 7 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 451 > X:[6, 7] Y:[-7, -6]
Found Entropy: 0
<Window: 452 > X:[ 6 , 7 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 453 > X:[ 6 , 7 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 454 > X:[6,7] Y:[-4,-3]
```

```
Found Entropy: 0
<Window: 455 > X:[6,7] Y:[-3,-2]
Found Entropy: 0
<Window: 456 > X:[6, 7] Y:[-2, -1]
Found Entropy: 0
<Window: 457 > X:[6,7] Y:[-1,0]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.6365141682948128
\{\text{Window}: 458 > X: [6, 7] Y: [0, 1]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 1.0986122886681096
<Window: 459 > X:[6,7] Y:[1,2]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 460 > X:[6, 7] Y:[2, 3]
Found Entropy: 0
<Window: 461 > X:[ 6 , 7 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 462 > X:[ 6 , 7 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 463 > X:[7,8] Y:[-9,-8]
Found Entropy: 0
<Window: 464 > X:[ 7 , 8 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 465 > X:[7,8] Y:[-7,-6]
Found Entropy: 0
<Window: 466 > X:[ 7 , 8 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 467 > X:[ 7 , 8 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 468 > X:[7,8] Y:[-4,-3]
Found Entropy: 0
\langle \text{Window}: 469 \rangle X: [7, 8] Y: [-3, -2]
Found Entropy: 0
\{\text{Window: } 470 > \text{X:} [7, 8] \text{ Y:} [-2, -1]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 471 > X:[ 7 , 8 ] Y:[ -1 , 0 ]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 472 > X:[7,8] Y:[0,1]
Found a sample of class: 2
Found a sample of class: 1
```

```
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.5623351446188083
<Window: 473 > X:[7,8] Y:[1,2]
Found Entropy: 0
<Window: 474 > X:[7,8] Y:[2,3]
Found Entropy: 0
<Window: 475 > X:[ 7 , 8 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 476 > X:[ 7 , 8 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 477 > X:[ 8 , 9 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 478 > X:[8,9] Y:[-8,-7]
Found Entropy: 0
<Window: 479 > X:[8,9] Y:[-7,-6]
Found Entropy: 0
<Window: 480 > X:[8,9] Y:[-6,-5]
Found Entropy: 0
\langle \text{Window}: 481 \rangle X: [8, 9] Y: [-5, -4]
Found Entropy: 0
<Window: 482 > X:[8,9] Y:[-4,-3]
Found Entropy: 0
\langle \text{Window}: 483 \rangle X: [8, 9] Y: [-3, -2]
Found Entropy: 0
\langle Window: 484 \rangle X: [8, 9] Y: [-2, -1]
Found Entropy: 0
<Window: 485 > X:[8,9] Y:[-1,0]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.6365141682948128
<Window: 486 > X:[ 8 , 9 ] Y:[ 0 , 1 ]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 487 > X:[ 8 , 9 ] Y:[ 1 , 2 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 488 > X:[ 8 , 9 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 489 > X:[ 8 , 9 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 490 > X:[8, 9] Y:[4, 5]
Found Entropy: 0
<Window: 491 > X:[ 9 , 10 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 492 > X:[9, 10] Y:[-8, -7]
```

```
Found Entropy: 0
<Window: 493 > X:[ 9 , 10 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 494 > X:[9, 10] Y:[-6, -5]
Found Entropy: 0
<Window: 495 > X:[9, 10] Y:[-5, -4]
Found Entropy: 0
<Window: 496 > X:[ 9 , 10 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 497 \rangle X: [9, 10] Y: [-3, -2]
Found Entropy: 0
<Window: 498 > X:[ 9 , 10 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 499 > X:[9, 10] Y:[-1, 0]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 500 > X:[ 9 , 10 ] Y:[ 0 , 1 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 501 > X:[ 9 , 10 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 502 > X:[ 9 , 10 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.6931471805599453
<Window: 503 > X:[ 9 , 10 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 504 > X:[ 9 , 10 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 505 > X:[ 10 , 11 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 506 > X:[ 10 , 11 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 507 > X:[ 10 , 11 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 508 > X:[ 10 , 11 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 509 > X:[ 10 , 11 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window: 510} \rangle \text{ X:[ 10 , 11 ] Y:[ -4 , -3 ]}
Found Entropy: 0
<Window: 511 > X:[ 10 , 11 ] Y:[ -3 , -2 ]
Found Entropy: 0
\forall X:[10, 11] Y:[-2, -1]
Found Entropy: 0
<Window: 513 > X:[ 10 , 11 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 514 > X:[ 10 , 11 ] Y:[ 0 , 1 ]
```

```
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.5623351446188083
<Window: 515 > X:[ 10 , 11 ] Y:[ 1 , 2 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 516 > X:[ 10 , 11 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 517 > X:[ 10 , 11 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 518 > X:[ 10 , 11 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 519 > X:[ 11 , 12 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 520 > X:[ 11 , 12 ] Y:[ -8 , -7 ]
Found Entropy: 0
\{Window: 521 > X:[11, 12] Y:[-7, -6]
Found Entropy: 0
<Window: 522 > X:[ 11 , 12 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 523 > X:[ 11 , 12 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 524 > X:[ 11 , 12 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: 525} \rangle X: [11, 12] Y: [-3, -2]
Found Entropy: 0
<Window: 526 > X:[ 11 , 12 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 527 > X:[ 11 , 12 ] Y:[ -1 , 0 ]
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.6931471805599453
<Window: 528 > X:[ 11 , 12 ] Y:[ 0 , 1 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 529 > X:[ 11 , 12 ] Y:[ 1 , 2 ]
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.6931471805599453
<Window: 530 > X:[ 11 , 12 ] Y:[ 2 , 3 ]
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 531 > X:[ 11 , 12 ] Y:[ 3 , 4 ]
Found a sample of class: 0
Found Entropy: 0.0
```

```
<Window: 532 > X:[ 11 , 12 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: 533} \rangle X: [12, 13] Y: [-9, -8]
Found Entropy: 0
\{Window: 534 > X:[12, 13] Y:[-8, -7]
Found Entropy: 0
<Window: 535 > X:[ 12 , 13 ] Y:[ -7 , -6 ]
Found Entropy: 0
\langle \text{Window}: 536 \rangle X: [12, 13] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window: } 537 \rangle \text{ X:[ } 12 \text{ , } 13 \text{ ] } \text{ Y:[ } -5 \text{ , } -4 \text{ ]}
Found Entropy: 0
\langle \text{Window: 538} \rangle \text{ X:[ 12 , 13 ] Y:[ -4 , -3 ]}
Found Entropy: 0
\langle \text{Window: 539} \rangle X: [12, 13] Y: [-3, -2]
Found Entropy: 0
\forall \text{Window: } 540 > X:[12, 13] Y:[-2, -1]
Found Entropy: 0
<Window: 541 > X:[12, 13] Y:[-1, 0]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 542 > X:[ 12 , 13 ] Y:[ 0 , 1 ]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.6365141682948128
<Window: 543 > X:[ 12 , 13 ] Y:[ 1 , 2 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 544 > X:[ 12 , 13 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 545 > X:[ 12 , 13 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 546 > X:[ 12 , 13 ] Y:[ 4 , 5 ]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.6365141682948128
\langle \text{Window: 547} \rangle \text{ X:[ 13 , 14 ] Y:[ -9 , -8 ]}
Found Entropy: 0
<Window: 548 > X:[ 13 , 14 ] Y:[ -8 , -7 ]
Found Entropy: 0
```

```
\langle \text{Window: 549} \rangle X: [13, 14] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window: } 550 \rangle \text{ X:} [ 13 , 14 ] \text{ Y:} [ -6 , -5 ]
Found Entropy: 0
\langle Window: 551 \rangle X: [13, 14] Y: [-5, -4]
Found Entropy: 0
<Window: 552 > X:[ 13 , 14 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 553 \rangle X: [13, 14] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 554 \rangle X: [13, 14] Y: [-2, -1]
Found Entropy: 0
<Window: 555 > X:[ 13 , 14 ] Y:[ -1 , 0 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 556 > X:[ 13 , 14 ] Y:[ 0 , 1 ]
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.6931471805599453
<Window: 557 > X:[ 13 , 14 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 558 > X:[ 13 , 14 ] Y:[ 2 , 3 ]
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.6365141682948128
<Window: 559 > X:[ 13 , 14 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 560 > X:[ 13 , 14 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 561 > X:[ 14 , 15 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 562 \rangle X: [14, 15] Y: [-8, -7]
Found Entropy: 0
<Window: 563 > X:[ 14 , 15 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 564 > X:[ 14 , 15 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 565 > X:[14, 15] Y:[-5, -4]
Found Entropy: 0
<Window: 566 > X:[ 14 , 15 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 567 \rangle X: [14, 15] Y: [-3, -2]
Found Entropy: 0
<Window: 568 > X:[ 14 , 15 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 569 > X:[ 14 , 15 ] Y:[ -1 , 0 ]
Found Entropy: 0
```

```
<Window: 570 > X:[ 14 , 15 ] Y:[ 0 , 1 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 571 > X:[ 14 , 15 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 572 > X:[ 14 , 15 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 573 > X:[ 14 , 15 ] Y:[ 3 , 4 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 574 > X:[ 14 , 15 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: 575} \rangle X: [15, 16] Y: [-9, -8]
Found Entropy: 0
<Window: 576 > X:[ 15 , 16 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window: 577} \rangle X: [15, 16] Y: [-7, -6]
Found Entropy: 0
<Window: 578 > X:[ 15 , 16 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 579 > X:[ 15 , 16 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window: 580} \rangle \text{ X:} [15, 16] \text{ Y:} [-4, -3]
Found Entropy: 0
\langle \text{Window: 581} \rangle \text{ X:[15,16] Y:[-3,-2]}
Found Entropy: 0
\langle \text{Window: 582} \rangle X: [15, 16] Y: [-2, -1]
Found Entropy: 0
<Window: 583 > X:[ 15 , 16 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 584 > X:[ 15 , 16 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 585 > X:[ 15 , 16 ] Y:[ 1 , 2 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 586 > X:[ 15 , 16 ] Y:[ 2 , 3 ]
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 587 > X:[ 15 , 16 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 588 > X:[ 15 , 16 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 589 > X:[ 16 , 17 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 590 > X:[ 16 , 17 ] Y:[ -8 , -7 ]
```

```
Found Entropy: 0
<Window: 591 > X:[ 16 , 17 ] Y:[ -7 , -6 ]
Found Entropy: 0
\forall X: [16, 17] Y: [-6, -5]
Found Entropy: 0
<Window: 593 > X:[ 16 , 17 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window: } 594 \rangle \text{ X:} [ 16 , 17 ] \text{ Y:} [ -4 , -3 ]
Found Entropy: 0
<Window: 595 > X:[ 16 , 17 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 596 > X:[ 16 , 17 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 597 > X:[ 16 , 17 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 598 > X:[ 16 , 17 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 599 > X:[ 16 , 17 ] Y:[ 1 , 2 ]
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 600 > X:[ 16 , 17 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 601 > X:[ 16 , 17 ] Y:[ 3 , 4 ]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.6365141682948128
<Window: 602 > X:[ 16 , 17 ] Y:[ 4 , 5 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 603 > X:[ 17 , 18 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 604 > X:[ 17 , 18 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 605 > X:[ 17 , 18 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 606 > X:[ 17 , 18 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 607 > X:[ 17 , 18 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 608 > X:[ 17 , 18 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 609 > X:[ 17 , 18 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 610 > X:[ 17 , 18 ] Y:[ -2 , -1 ]
Found Entropy: 0
```

```
<Window: 611 > X:[ 17 , 18 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 612 > X:[ 17 , 18 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 613 > X:[ 17 , 18 ] Y:[ 1 , 2 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 614 > X:[ 17 , 18 ] Y:[ 2 , 3 ]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 615 > X:[ 17 , 18 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 616 > X:[ 17 , 18 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 617 > X:[ 18 , 19 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 618 > X:[ 18 , 19 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 619 > X:[ 18 , 19 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 620 > X:[ 18 , 19 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 621 \rangle X: [18, 19] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window: } 622 \rangle \text{ X:} [ 18 , 19 ] \text{ Y:} [ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 623 \rangle X: [ 18 , 19 ] Y: [ -3 , -2 ]
Found Entropy: 0
\{\text{Window: } 624 > X: [18, 19] Y: [-2, -1]
Found Entropy: 0
<Window: 625 > X:[ 18 , 19 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 626 > X:[ 18 , 19 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 627 > X:[ 18 , 19 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 628 > X:[ 18 , 19 ] Y:[ 2 , 3 ]
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 629 > X:[ 18 , 19 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found a sample of class: 0
```

```
Found a sample of class: 2
Found Entropy: 1.0986122886681096
<Window: 630 > X:[ 18 , 19 ] Y:[ 4 , 5 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
\{Window: 631 > X:[19, 20] Y:[-9, -8]
Found Entropy: 0
\{\text{Window: } 632 > X: [19, 20] Y: [-8, -7] \}
Found Entropy: 0
<Window: 633 > X:[ 19 , 20 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 634 > X:[ 19 , 20 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 635 > X:[ 19 , 20 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 636 > X:[ 19 , 20 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 637 > X:[ 19 , 20 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window}: 638 \rangle X: [19, 20] Y: [-2, -1]
Found Entropy: 0
<Window: 639 > X:[ 19 , 20 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 640 > X:[ 19 , 20 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 641 > X:[ 19 , 20 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 642 > X:[ 19 , 20 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 643 > X:[ 19 , 20 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 644 > X:[ 19 , 20 ] Y:[ 4 , 5 ]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 1.0549201679861442
<Window: 645 > X:[ 20 , 21 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 646 > X:[ 20 , 21 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 647 > X:[ 20 , 21 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 648 > X:[ 20 , 21 ] Y:[ -6 , -5 ]
Found Entropy: 0
```

```
<Window: 649 > X:[ 20 , 21 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 650 > X:[ 20 , 21 ] Y:[ -4 , -3 ]
Found Entropy: 0
\{Window: 651 > X: [20, 21] Y: [-3, -2] \}
Found Entropy: 0
\langle \text{Window}: 652 \rangle X: [20, 21] Y: [-2, -1]
Found Entropy: 0
<Window: 653 > X:[ 20 , 21 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 654 > X:[ 20 , 21 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 655 > X:[ 20 , 21 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 656 > X:[ 20 , 21 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 657 > X:[ 20 , 21 ] Y:[ 3 , 4 ]
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 658 > X:[ 20 , 21 ] Y:[ 4 , 5 ]
Found a sample of class: 0
Found Entropy: 0.0
Total Count: 658
Expected Count: 658
OKAY: True
----Done--- 28.127269243771856
Done!
-26 21 -9 5
You Can use this matrix now.
X_{min} = -26
X_max= 21
Y_min = -9
Y_max= 5
And the Matrix Shape: 47 * 14
\langle \text{Window: 1} \rangle X:[-26, -25] Y:[-9, -8]
Found Entropy: 0
\langle \text{Window: 2} \rangle \text{ X:[-26,-25] Y:[-8,-7]}
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
\langle \text{Window}: 3 \rangle X: [-26, -25] Y: [-7, -6]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 1.0397207708399179
\{\text{Window: 4} > \text{X:[-26,-25]} \text{Y:[-6,-5]}
```

```
Found Entropy: 0
<Window: 5 > X:[ -26 , -25 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 6 > X:[ -26 , -25 ] Y:[ -4 , -3 ]
Found Entropy: 0
\forall x \in Y : [-26, -25] Y : [-3, -2]
Found Entropy: 0
\langle \text{Window: 8 > X:[-26,-25] Y:[-2,-1]}
Found Entropy: 0
\langle \text{Window: 9 > X:[-26,-25] Y:[-1,0]}
Found Entropy: 0
\langle \text{Window}: 10 \rangle X: [-26, -25] Y: [0, 1]
Found Entropy: 0
<Window: 11 > X:[ -26 , -25 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window}: 12 \rangle X: [-26, -25] Y: [2, 3]
Found Entropy: 0
<Window: 13 > X:[ -26 , -25 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 14 > X:[ -26 , -25 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 15 \rangle X: [-25, -24] Y: [-9, -8]
Found Entropy: 0
<Window: 16 > X:[ -25 , -24 ] Y:[ -8 , -7 ]
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 0.6931471805599453
\langle \text{Window}: 17 > X: [-25, -24] Y: [-7, -6]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.6931471805599453
\{Window: 18 > X: [ -25 , -24 ] Y: [ -6 , -5 ]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 19 \rangle X: [-25, -24] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 20 \rangle X: [-25, -24] Y: [-4, -3]
Found Entropy: 0
\forall X: [-25, -24] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 22 \rangle X: [-25, -24] Y: [-2, -1]
Found Entropy: 0
<Window: 23 > X:[ -25 , -24 ] Y:[ -1 , 0 ]
Found Entropy: 0
\forall x \in X : [-25, -24] Y : [0, 1]
Found Entropy: 0
```

```
\langle \text{Window}: 25 \rangle X: [-25, -24] Y: [1, 2]
Found Entropy: 0
\langle \text{Window}: 26 \rangle X: [-25, -24] Y: [2, 3]
Found Entropy: 0
\{\text{Window: } 27 > \text{X:} [-25, -24] \text{ Y:} [3, 4]
Found Entropy: 0
<Window: 28 > X:[ -25 , -24 ] Y:[ 4 , 5 ]
Found Entropy: 0
\{Window: 29 \} X: [ -24 , -23 ] Y: [ -9 , -8 ]
Found Entropy: 0
\{Window: 30 > X: [-24, -23] Y: [-8, -7] \}
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 0.6931471805599453
\langle \text{Window}: 31 \rangle X: [-24, -23] Y: [-7, -6]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.5623351446188083
\langle \text{Window}: 32 \rangle X: [-24, -23] Y: [-6, -5]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 33 > X:[ -24 , -23 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 34 \rangle X: [-24, -23] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 35 \rangle X: [-24, -23] Y: [-3, -2]
Found Entropy: 0
\forall Window: 36 > X:[ -24 , -23 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 37 > X:[-24, -23] Y:[-1, 0]
Found Entropy: 0
<Window: 38 > X:[-24, -23] Y:[0, 1]
Found Entropy: 0
\langle \text{Window: } 39 \rangle \text{ X:} [ -24 , -23 ] \text{ Y:} [ 1 , 2 ]
Found Entropy: 0
<Window: 40 > X:[ -24 , -23 ] Y:[ 2 , 3 ]
Found Entropy: 0
\langle \text{Window: } 41 \rangle \ \text{X:[} -24 \ , -23 \ ] \ \text{Y:[} 3 \ , 4 \ ]
Found Entropy: 0
\{\text{Window: } 42 > X: [-24, -23] \ Y: [4, 5]
Found Entropy: 0
\langle \text{Window}: 43 \rangle X: [-23, -22] Y: [-9, -8]
Found Entropy: 0
\{\text{Window: } 44 > \text{X:} [-23, -22] \text{ Y:} [-8, -7] \}
Found a sample of class: 2
Found Entropy: 0.0
```

```
\langle \text{Window}: 45 \rangle X: [-23, -22] Y: [-7, -6]
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 1.0397207708399179
\langle \text{Window}: 46 \rangle X: [-23, -22] Y: [-6, -5]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
\{\text{Window: } 47 > \text{X:} [-23, -22] \text{ Y:} [-5, -4] \}
Found Entropy: 0
\langle \text{Window: } 48 \rangle \ \text{X:[} -23 , -22 \ ] \ \text{Y:[} -4 , -3 \ ]
Found Entropy: 0
\langle \text{Window}: 49 \rangle X: [-23, -22] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 50 \rangle X: [-23, -22] Y: [-2, -1]
Found Entropy: 0
<Window: 51 > X:[ -23 , -22 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 52 > X:[ -23 , -22 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window: 53} \rangle \text{ X:[-23,-22] Y:[1,2]}
Found Entropy: 0
\langle \text{Window}: 54 \rangle X: [-23, -22] Y: [2, 3]
Found Entropy: 0
<Window: 55 > X:[ -23 , -22 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 56 > X:[ -23 , -22 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 57 \rangle X: [-22, -21] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window: 58} \rangle \text{ X: [ -22 , -21 ] Y: [ -8 , -7 ]}
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6931471805599453
\langle \text{Window}: 59 \rangle X: [-22, -21] Y: [-7, -6]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window: } 60 \rangle \text{ X: } [-22, -21] \text{ Y: } [-6, -5]
Found Entropy: 0
<Window: 61 > X:[ -22 , -21 ] Y:[ -5 , -4 ]
Found Entropy: 0
\forall \text{Window: } 62 > X:[-22, -21] Y:[-4, -3]
Found Entropy: 0
\forall \text{Window: } 63 > X:[-22, -21] Y:[-3, -2]
Found Entropy: 0
```

```
\{\text{Window: } 64 > \text{X:} [-22, -21] \text{ Y:} [-2, -1] \}
Found Entropy: 0
\langle \text{Window: } 65 \rangle \text{ X: [} -22 , -21 ] \text{ Y: [} -1 , 0 ]
Found Entropy: 0
<Window: 66 > X:[-22, -21] Y:[0, 1]
Found Entropy: 0
<Window: 67 > X:[ -22 , -21 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 68 > X:[ -22 , -21 ] Y:[ 2 , 3 ]
Found Entropy: 0
\langle \text{Window: } 69 \rangle \text{ X: [} -22 , -21 ] \text{ Y: [} 3 , 4 ]
Found Entropy: 0
\langle \text{Window: 70} \rangle X: [-22, -21] Y: [4, 5]
Found Entropy: 0
\{Window: 71 > X:[ -21 , -20 ] Y:[ -9 , -8 ]
Found a sample of class: 1
Found Entropy: 0.0
\{\text{Window: 72} > \text{X:} [-21, -20] \text{ Y:} [-8, -7] \}
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 0.6365141682948128
\langle \text{Window: 73} \rangle \text{ X: [ -21 , -20 ] Y: [ -7 , -6 ]}
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 1.0114042647073518
\{\text{Window: } 74 > \text{X:} [-21, -20] \text{ Y:} [-6, -5] \}
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
\langle \text{Window}: 75 \rangle X: [-21, -20] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 76 \rangle X: [-21, -20] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 77 > X:[-21, -20] Y:[-3, -2]
Found Entropy: 0
\forall X: [-21, -20] Y: [-2, -1]
Found Entropy: 0
\{\text{Window: 79} > \text{X:} [-21, -20] \text{ Y:} [-1, 0]
Found Entropy: 0
<Window: 80 > X:[ -21 , -20 ] Y:[ 0 , 1 ]
Found Entropy: 0
\forall X: [-21, -20] Y: [1, 2]
Found Entropy: 0
```

```
\{\text{Window: 82} > \text{X:[-21,-20]} \text{Y:[2,3]}
Found Entropy: 0
<Window: 83 > X:[ -21 , -20 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 84 > X:[ -21 , -20 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 85 \rangle X: [-20, -19] Y: [-9, -8]
Found Entropy: 0
\{Window: 86 \} X: [ -20 , -19 ] Y: [ -8 , -7 ]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 87 \rangle X: [-20, -19] Y: [-7, -6]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.6931471805599453
\langle \text{Window: 88} \rangle \text{ X: [ -20 , -19 ] Y: [ -6 , -5 ]}
Found Entropy: 0
\langle \text{Window: } 89 \rangle \text{ X: } [-20, -19] \text{ Y: } [-5, -4]
Found Entropy: 0
\langle \text{Window}: 90 \rangle X: [-20, -19] Y: [-4, -3]
Found Entropy: 0
\{Window: 91 > X:[ -20 , -19 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window}: 92 \rangle X: [-20, -19] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window: 93} \rangle \text{ X: [ -20 , -19 ] Y: [ -1 , 0 ]}
Found Entropy: 0
<Window: 94 > X:[ -20 , -19 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window: 95} \rangle X: [-20, -19] Y: [1, 2]
Found Entropy: 0
<Window: 96 > X:[ -20 , -19 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 97 > X:[ -20 , -19 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window: 98} \rangle \text{ X:[-20,-19] Y:[4,5]}
Found Entropy: 0
\langle \text{Window: } 99 \rangle \ \text{X:} [ -19 , -18 ] \ \text{Y:} [ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 100 \rangle X: [-19, -18] Y: [-8, -7]
Found a sample of class: 2
Found Entropy: 0.0
\langle Window: 101 \rangle X:[-19, -18] Y:[-7, -6]
Found Entropy: 0
\langle \text{Window: } 102 \rangle \text{ X:[} -19 , -18 ] \text{ Y:[} -6 , -5 ]
Found a sample of class: 0
```

```
Found Entropy: 0.0
\langle \text{Window}: 103 \rangle X: [-19, -18] Y: [-5, -4]
Found Entropy: 0
\{Window: 104 > X:[-19, -18] Y:[-4, -3]
Found Entropy: 0
<Window: 105 > X:[ -19 , -18 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window: } 106 \rangle \ \text{X:[} -19 \ , -18 \ ] \ \text{Y:[} -2 \ , -1 \ ]
Found Entropy: 0
\langle \text{Window}: 107 > X:[-19, -18] Y:[-1, 0]
Found Entropy: 0
<Window: 108 > X:[ -19 , -18 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 109 > X:[ -19 , -18 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window: } 110 \rangle \ \text{X:[} -19 \ , -18 \ ] \ \text{Y:[} 2 \ , 3 \ ]
Found Entropy: 0
\langle \text{Window: } 111 \rangle \ \text{X:[} -19 \ , -18 \ ] \ \text{Y:[} 3 \ , 4 \ ]
Found Entropy: 0
<Window: 112 > X:[ -19 , -18 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 113 > X:[ -18 , -17 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 114 > X:[ -18 , -17 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window}: 115 \rangle X: [-18, -17] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 116 \rangle X: [-18, -17] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 117 > X:[-18, -17] Y:[-5, -4]
Found Entropy: 0
\langle \text{Window}: 118 \rangle X: [-18, -17] Y: [-4, -3]
Found Entropy: 0
\langle Window: 119 \rangle X: [-18, -17] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window: } 120 \rangle \text{ X:[} -18 , -17 ] \text{ Y:[} -2 , -1 ]
Found Entropy: 0
\langle \text{Window: } 121 \rangle \ \text{X:[} -18 \ , -17 \ ] \ \text{Y:[} -1 \ , 0 \ ]
Found Entropy: 0
<Window: 122 > X:[ -18 , -17 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 123 > X:[ -18 , -17 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 124 > X:[ -18 , -17 ] Y:[ 2 , 3 ]
Found Entropy: 0
\langle \text{Window: } 125 \rangle X:[-18, -17] Y:[3, 4]
Found Entropy: 0
\langle \text{Window}: 126 \rangle X: [-18, -17] Y: [4, 5]
```

```
Found Entropy: 0
\forall x = 127 > x = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 
Found Entropy: 0
<Window: 128 > X:[ -17 , -16 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window}: 129 \rangle X: [-17, -16] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 130 \rangle X: [-17, -16] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 131 \rangle X: [-17, -16] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 132 \rangle X: [-17, -16] Y: [-4, -3]
Found Entropy: 0
<Window: 133 > X:[ -17 , -16 ] Y:[ -3 , -2 ]
Found Entropy: 0
\forall \text{Window: } 134 > X:[-17, -16] Y:[-2, -1]
Found Entropy: 0
<Window: 135 > X:[ -17 , -16 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 136 > X:[ -17 , -16 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window: } 137 \rangle \ \text{X:[} -17 \ , -16 \ ] \ \text{Y:[} 1 \ , 2 \ ]
Found Entropy: 0
<Window: 138 > X:[ -17 , -16 ] Y:[ 2 , 3 ]
Found Entropy: 0
\langle \text{Window}: 139 \rangle X: [-17, -16] Y: [3, 4]
Found Entropy: 0
<Window: 140 > X:[ -17 , -16 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 141 > X:[ -16 , -15 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window: } 142 \rangle \text{ X:[} -16 , -15 ] \text{ Y:[} -8 , -7 ]
Found Entropy: 0
<Window: 143 > X:[ -16 , -15 ] Y:[ -7 , -6 ]
Found Entropy: 0
\langle \text{Window: } 144 \rangle \ \text{X:[} -16 \ , -15 \ ] \ \text{Y:[} -6 \ , -5 \ ]
Found Entropy: 0
\langle \text{Window: } 145 \rangle \ \text{X:[} -16 \ , -15 \ ] \ \text{Y:[} -5 \ , -4 \ ]
Found Entropy: 0
\langle \text{Window}: 146 \rangle X: [-16, -15] Y: [-4, -3]
Found Entropy: 0
<Window: 147 > X:[ -16 , -15 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 148 > X:[ -16 , -15 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 149 > X:[ -16 , -15 ] Y:[ -1 , 0 ]
Found Entropy: 0
\langle \text{Window: } 150 \rangle \text{ X:[} -16 , -15 ] \text{ Y:[} 0 , 1 ]
```

```
Found Entropy: 0
<Window: 151 > X:[ -16 , -15 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window: } 152 \rangle \ \text{X:[} -16 \ , -15 \ ] \ \text{Y:[} 2 \ , 3 \ ]
Found Entropy: 0
<Window: 153 > X:[ -16 , -15 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window: } 154 \rangle \ \text{X:[} -16 \ , -15 \ ] \ \text{Y:[} 4 \ , 5 \ ]
Found Entropy: 0
<Window: 155 > X:[ -15 , -14 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 156 \rangle X: [-15, -14] Y: [-8, -7]
Found Entropy: 0
<Window: 157 > X:[ -15 , -14 ] Y:[ -7 , -6 ]
Found Entropy: 0
\langle \text{Window}: 158 \rangle X: [-15, -14] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 159 \rangle X: [-15, -14] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 160 \rangle X: [-15, -14] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 161 \rangle X: [-15, -14] Y: [-3, -2]
Found Entropy: 0
<Window: 162 > X:[ -15 , -14 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 163 > X:[ -15 , -14 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 164 > X:[ -15 , -14 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 165 > X:[ -15 , -14 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 166 > X:[ -15 , -14 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 167 > X:[ -15 , -14 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 168 > X:[ -15 , -14 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 169 \rangle \ \text{X:[} -14 \ , -13 \ ] \ \text{Y:[} -9 \ , -8 \ ]
Found Entropy: 0
\langle \text{Window}: 170 \rangle X: [-14, -13] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 171 > X: [-14, -13] Y: [-7, -6]
Found Entropy: 0
<Window: 172 > X:[ -14 , -13 ] Y:[ -6 , -5 ]
Found Entropy: 0
\forall Window: 173 > X:[ -14 , -13 ] Y:[ -5 , -4 ]
Found Entropy: 0
\forall \text{Window: } 174 > X:[-14, -13] Y:[-4, -3]
```

```
Found Entropy: 0
\langle \text{Window}: 175 \rangle X: [-14, -13] Y: [-3, -2]
Found Entropy: 0
<Window: 176 > X:[ -14 , -13 ] Y:[ -2 , -1 ]
Found Entropy: 0
\langle \text{Window: } 177 \rangle X:[-14, -13] Y:[-1, 0]
Found Entropy: 0
\langle \text{Window: } 178 \rangle \ \text{X:[} -14 \ , -13 \ ] \ \text{Y:[} 0 \ , 1 \ ]
Found Entropy: 0
<Window: 179 > X:[ -14 , -13 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 180 > X:[ -14 , -13 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 181 > X:[ -14 , -13 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window: } 182 \rangle \ \text{X:[} -14 \ , -13 \ ] \ \text{Y:[} 4 \ , 5 \ ]
Found Entropy: 0
\langle Window: 183 \rangle X: [-13, -12] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 184 \rangle X: [-13, -12] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window: } 185 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} -7 \ , -6 \ ]
Found Entropy: 0
<Window: 186 > X:[ -13 , -12 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 187 \rangle X: [-13, -12] Y: [-5, -4]
Found Entropy: 0
\forall Window: 188 > X:[ -13 , -12 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 189 \rangle X: [-13, -12] Y: [-3, -2]
Found Entropy: 0
\forall \text{Window: } 190 > X:[-13, -12] Y:[-2, -1]
Found Entropy: 0
\{Window: 191 > X:[ -13 , -12 ] Y:[ -1 , 0 ]
Found Entropy: 0
\langle \text{Window: } 192 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} 0 \ , 1 \ ]
Found Entropy: 0
\langle \text{Window: 193} \rangle X: [-13, -12] Y: [1, 2]
Found Entropy: 0
\langle \text{Window: } 194 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} 2 \ , 3 \ ]
Found Entropy: 0
<Window: 195 > X:[ -13 , -12 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 196 > X:[ -13 , -12 ] Y:[ 4 , 5 ]
Found Entropy: 0
\forall \text{Window: } 197 > X:[-12, -11] Y:[-9, -8]
Found Entropy: 0
\forall \text{Window: } 198 > X:[-12, -11] Y:[-8, -7]
```

```
Found Entropy: 0
\forall \text{Window: } 199 > X:[-12, -11] Y:[-7, -6]
Found Entropy: 0
\forall X: [-12, -11] Y: [-6, -5]
Found Entropy: 0
<Window: 201 > X:[ -12 , -11 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 202 \rangle X: [-12, -11] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 203 \rangle X: [-12, -11] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 204 \rangle X: [-12, -11] Y: [-2, -1]
Found Entropy: 0
<Window: 205 > X:[ -12 , -11 ] Y:[ -1 , 0 ]
Found Entropy: 0
\langle \text{Window}: 206 \rangle X: [-12, -11] Y: [0, 1]
Found Entropy: 0
\langle \text{Window: } 207 \rangle X:[-12, -11] Y:[1, 2]
Found Entropy: 0
<Window: 208 > X:[ -12 , -11 ] Y:[ 2 , 3 ]
Found Entropy: 0
\langle \text{Window: } 209 \rangle \ X: [ -12 , -11 ] \ Y: [ 3 , 4 ]
Found Entropy: 0
<Window: 210 > X:[ -12 , -11 ] Y:[ 4 , 5 ]
Found Entropy: 0
\{Window: 211 > X:[-11, -10] Y:[-9, -8]
Found Entropy: 0
\langle \text{Window}: 212 \rangle X: [-11, -10] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 213 \rangle X: [-11, -10] Y: [-7, -6]
Found Entropy: 0
\forall X:[-11, -10] Y:[-6, -5]
Found Entropy: 0
\langle \text{Window}: 215 \rangle X: [-11, -10] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 216 \rangle X: [-11, -10] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 217 \rangle X: [-11, -10] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 218 \rangle X: [-11, -10] Y: [-2, -1]
Found Entropy: 0
<Window: 219 > X:[ -11 , -10 ] Y:[ -1 , 0 ]
Found Entropy: 0
\langle \text{Window: } 220 \rangle X:[-11, -10] Y:[0, 1]
Found Entropy: 0
\langle \text{Window: } 221 \rangle X:[-11, -10] Y:[1, 2]
Found Entropy: 0
\langle \text{Window: } 222 \rangle X:[-11, -10] Y:[2, 3]
```

```
Found Entropy: 0
<Window: 223 > X:[ -11 , -10 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 224 > X:[-11, -10] Y:[4, 5]
Found Entropy: 0
\langle \text{Window: } 225 \rangle \text{ X:[} -10 , -9 ] \text{ Y:[} -9 , -8 ]
Found Entropy: 0
<Window: 226 > X:[ -10 , -9 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 227 > X:[ -10 , -9 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 228 > X:[ -10 , -9 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 229 > X:[ -10 , -9 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 230 \rangle X: [-10, -9] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 231 \rangle X: [-10, -9] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 232 \rangle X: [-10, -9] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 233 \rangle X: [-10, -9] Y: [-1, 0]
Found Entropy: 0
<Window: 234 > X:[ -10 , -9 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 235 \rangle X: [-10, -9] Y: [1, 2]
Found Entropy: 0
<Window: 236 > X:[ -10 , -9 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 237 > X:[ -10 , -9 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 238 > X:[ -10 , -9 ] Y:[ 4 , 5 ]
Found Entropy: 0
\forall X: [-9, -8] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window: } 240 \rangle \text{ X:[} -9 , -8 ] \text{ Y:[} -8 , -7 ]
Found Entropy: 0
\langle \text{Window: } 241 \rangle \ \text{X:[} -9 \ , -8 \ ] \ \text{Y:[} -7 \ , -6 \ ]
Found Entropy: 0
\langle \text{Window: } 242 \rangle \ \text{X:[} -9 \ , -8 \ ] \ \text{Y:[} -6 \ , -5 \ ]
Found Entropy: 0
\langle \text{Window}: 243 \rangle X: [-9, -8] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 244 \rangle X: [-9, -8] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 245 \rangle X: [-9, -8] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 246 \rangle X: [-9, -8] Y: [-2, -1]
```

```
Found Entropy: 0
<Window: 247 > X:[ -9 , -8 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 248 > X:[-9, -8] Y:[0, 1]
Found Entropy: 0
\langle \text{Window}: 249 \rangle X: [-9, -8] Y: [1, 2]
Found Entropy: 0
\langle \text{Window}: 250 \rangle X: [-9, -8] Y: [2, 3]
Found Entropy: 0
\langle \text{Window}: 251 \rangle X: [-9, -8] Y: [3, 4]
Found Entropy: 0
<Window: 252 > X:[ -9 , -8 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 253 > X:[ -8 , -7 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 254 \rangle X: [-8, -7] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 255 \rangle X: [-8, -7] Y: [-7, -6]
Found Entropy: 0
<Window: 256 > X:[ -8 , -7 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 257 \rangle X: [-8, -7] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 258 \rangle X: [-8, -7] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 259 \rangle X: [-8, -7] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 260 \rangle X: [-8, -7] Y: [-2, -1]
Found Entropy: 0
<Window: 261 > X:[-8, -7] Y:[-1, 0]
Found Entropy: 0
<Window: 262 > X:[ -8 , -7 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 263 > X:[-8, -7] Y:[1, 2]
Found Entropy: 0
<Window: 264 > X:[ -8 , -7 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 265 > X:[ -8 , -7 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 266 > X:[ -8 , -7 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 267 \rangle X: [-7, -6] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 268 \rangle X: [-7, -6] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window: } 269 \rangle X:[-7,-6] Y:[-7,-6]
Found Entropy: 0
\forall x = 100 \times 100 \times 100 \times 1000 \times 1000
```

```
Found Entropy: 0
\forall X:[-7,-6] Y:[-5,-4]
Found Entropy: 0
\forall X: [-7, -6] \ Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 273 \rangle X: [-7, -6] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 274 \rangle X: [-7, -6] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 275 \rangle X: [-7, -6] Y: [-1, 0]
Found Entropy: 0
<Window: 276 > X:[ -7 , -6 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 277 > X:[ -7 , -6 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window}: 278 \rangle X:[-7,-6] Y:[2,3]
Found Entropy: 0
<Window: 279 > X:[ -7 , -6 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window}: 280 \rangle X: [-7, -6] Y: [4, 5]
Found Entropy: 0
\langle \text{Window: } 281 \rangle \ \text{X:[} -6 \ , -5 \ ] \ \text{Y:[} -9 \ , -8 \ ]
Found Entropy: 0
<Window: 282 > X:[ -6 , -5 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window}: 283 \rangle X: [-6, -5] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window: } 284 \rangle \text{ X:} [ -6 , -5 ] \text{ Y:} [ -6 , -5 ]
Found Entropy: 0
<Window: 285 > X:[ -6 , -5 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window: } 286 \rangle \text{ X:} [ -6 , -5 ] \text{ Y:} [ -4 , -3 ]
Found Entropy: 0
\forall X: [-6, -5] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window: 288} \rangle X: [-6, -5] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window: 289} \rangle X: [-6, -5] Y: [-1, 0]
Found Entropy: 0
<Window: 290 > X:[ -6 , -5 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 291 > X:[ -6 , -5 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 292 > X:[ -6 , -5 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 293 > X:[ -6 , -5 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 294 > X:[ -6 , -5 ] Y:[ 4 , 5 ]
```

```
Found Entropy: 0
<Window: 295 > X:[ -5 , -4 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 296 > X:[ -5 , -4 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window: } 297 \rangle \text{ X:} [ -5 , -4 ] \text{ Y:} [ -7 , -6 ]
Found Entropy: 0
\langle \text{Window: } 298 \rangle \ \text{X:[} -5 \ , -4 \ ] \ \text{Y:[} -6 \ , -5 \ ]
Found Entropy: 0
\langle \text{Window}: 299 \rangle X: [-5, -4] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 300 \rangle X: [-5, -4] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 301 \rangle X: [-5, -4] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 302 \rangle X: [-5, -4] Y: [-2, -1]
Found Entropy: 0
<Window: 303 > X:[-5, -4] Y:[-1, 0]
Found Entropy: 0
<Window: 304 > X:[ -5 , -4 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 305 > X:[ -5 , -4 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window}: 306 \rangle X: [-5, -4] Y: [2, 3]
Found Entropy: 0
<Window: 307 > X:[ -5 , -4 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 308 > X:[ -5 , -4 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 309 > X:[ -4 , -3 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 310 > X:[ -4 , -3 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window}: 311 \rangle X: [-4, -3] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 312 \rangle X: [-4, -3] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 313 \rangle X: [-4, -3] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 314 \rangle X: [-4, -3] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 315 \rangle X: [-4, -3] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 316 \rangle X: [-4, -3] Y: [-2, -1]
Found Entropy: 0
<Window: 317 > X:[ -4 , -3 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 318 > X:[ -4 , -3 ] Y:[ 0 , 1 ]
```

```
Found Entropy: 0
\langle \text{Window}: 319 \rangle X: [-4, -3] Y: [1, 2]
Found Entropy: 0
\langle \text{Window}: 320 \rangle X: [-4, -3] Y: [2, 3]
Found Entropy: 0
\langle \text{Window}: 321 \rangle X: [-4, -3] Y: [3, 4]
Found Entropy: 0
\langle \text{Window}: 322 \rangle X: [-4, -3] Y: [4, 5]
Found Entropy: 0
\langle \text{Window}: 323 \rangle X: [-3, -2] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 324 \rangle X: [-3, -2] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 325 \rangle X: [-3, -2] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 326 \rangle X: [-3, -2] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 327 \rangle X:[-3, -2] Y:[-5, -4]
Found Entropy: 0
\langle \text{Window}: 328 \rangle X: [-3, -2] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 329 \rangle X: [-3, -2] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 330 \rangle X: [-3, -2] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 331 \rangle X: [-3, -2] Y: [-1, 0]
Found Entropy: 0
\langle \text{Window}: 332 \rangle X: [-3, -2] Y: [0, 1]
Found Entropy: 0
<Window: 333 > X:[ -3 , -2 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 334 > X:[ -3 , -2 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 335 > X:[ -3 , -2 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 336 > X:[ -3 , -2 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 337 \rangle \text{ X:} [-2, -1] \text{ Y:} [-9, -8]
Found Entropy: 0
\langle \text{Window}: 338 \rangle X: [-2, -1] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 339 \rangle X: [-2, -1] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 340 \rangle X: [-2, -1] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 341 \rangle X: [-2, -1] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 342 \rangle X: [-2, -1] Y: [-4, -3]
```

```
Found Entropy: 0
<Window: 343 > X:[ -2 , -1 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 344 > X:[ -2 , -1 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 345 > X:[ -2 , -1 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 346 > X:[ -2 , -1 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 347 > X: [-2, -1] Y: [1, 2]
Found Entropy: 0
<Window: 348 > X:[ -2 , -1 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 349 > X:[ -2 , -1 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 350 > X:[ -2 , -1 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 351 > X:[ -1 , 0 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 352 \rangle X: [-1, 0] Y: [-8, -7]
Found Entropy: 0
<Window: 353 > X:[ -1 , 0 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 354 > X:[ -1 , 0 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 355 \rangle X: [-1, 0] Y: [-5, -4]
Found Entropy: 0
<Window: 356 > X:[-1, 0] Y:[-4, -3]
Found Entropy: 0
\langle \text{Window: } 357 \rangle \text{ X:[} -1 , 0 ] \text{ Y:[} -3 , -2 ]
Found Entropy: 0
<Window: 358 > X:[ -1 , 0 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 359 > X:[ -1 , 0 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 360 > X:[ -1 , 0 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 361 > X:[ -1 , 0 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 362 > X:[ -1 , 0 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 363 > X:[ -1 , 0 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 364 > X:[ -1 , 0 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 365 > X:[ 0 , 1 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 366 > X:[ 0 , 1 ] Y:[ -8 , -7 ]
```

```
Found Entropy: 0
<Window: 367 > X:[0, 1] Y:[-7, -6]
Found Entropy: 0
<Window: 368 > X:[ 0 , 1 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 369 > X:[0, 1] Y:[-5, -4]
Found Entropy: 0
<Window: 370 > X:[ 0 , 1 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 371 > X:[0,1] Y:[-3,-2]
Found Entropy: 0
\langle \text{Window}: 372 \rangle X: [0, 1] Y: [-2, -1]
Found Entropy: 0
<Window: 373 > X:[ 0 , 1 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 374 > X:[ 0 , 1 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 375 > X:[ 0 , 1 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 376 > X:[ 0 , 1 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 377 > X:[ 0 , 1 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 378 > X:[0,1] Y:[4,5]
Found Entropy: 0
\langle \text{Window}: 379 \rangle X: [1, 2] Y: [-9, -8]
Found Entropy: 0
<Window: 380 > X:[1,2] Y:[-8,-7]
Found Entropy: 0
<Window: 381 > X:[ 1 , 2 ] Y:[ -7 , -6 ]
Found Entropy: 0
\langle \text{Window}: 382 \rangle X: [1, 2] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 383 \rangle X: [1, 2] Y: [-5, -4]
Found Entropy: 0
<Window: 384 > X:[1, 2] Y:[-4, -3]
Found Entropy: 0
<Window: 385 > X:[1,2] Y:[-3,-2]
Found Entropy: 0
<Window: 386 > X:[1,2] Y:[-2,-1]
Found Entropy: 0
<Window: 387 > X:[1, 2] Y:[-1, 0]
Found Entropy: 0
<Window: 388 > X:[ 1 , 2 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 389 \rangle X:[1,2] Y:[1,2]
Found Entropy: 0
<Window: 390 > X:[ 1 , 2 ] Y:[ 2 , 3 ]
```

```
Found Entropy: 0
<Window: 391 > X:[ 1 , 2 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 392 > X:[1,2] Y:[4,5]
Found Entropy: 0
<Window: 393 > X:[ 2 , 3 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 394 \rangle X: [2, 3] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 395 \rangle X: [2, 3] Y: [-7, -6]
Found Entropy: 0
<Window: 396 > X:[ 2 , 3 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 397 > X:[ 2 , 3 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 398 \rangle X: [2, 3] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 399 \rangle X: [2, 3] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 400 \rangle X: [2, 3] Y: [-2, -1]
Found Entropy: 0
<Window: 401 > X:[ 2 , 3 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 402 > X:[ 2 , 3 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 403 > X:[ 2 , 3 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 404 > X:[2,3] Y:[2,3]
Found Entropy: 0
<Window: 405 > X:[2,3] Y:[3,4]
Found Entropy: 0
<Window: 406 > X:[ 2 , 3 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 407 > X:[3,4] Y:[-9,-8]
Found Entropy: 0
<Window: 408 > X:[3,4] Y:[-8,-7]
Found Entropy: 0
<Window: 409 > X:[3,4] Y:[-7,-6]
Found Entropy: 0
<Window: 410 > X:[3, 4] Y:[-6, -5]
Found Entropy: 0
<Window: 411 > X:[ 3 , 4 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 412 > X:[3, 4] Y:[-4, -3]
Found Entropy: 0
\langle \text{Window}: 413 \rangle X: [3, 4] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 414 \rangle X: [3, 4] Y: [-2, -1]
```

```
Found Entropy: 0
<Window: 415 > X:[ 3 , 4 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 416 > X:[ 3 , 4 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 417 > X:[ 3 , 4 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 418 > X:[3, 4] Y:[2, 3]
Found Entropy: 0
<Window: 419 > X:[ 3 , 4 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 420 > X:[ 3 , 4 ] Y:[ 4 , 5 ]
Found Entropy: 0
\{\text{Window: } 421 > X:[4,5] Y:[-9,-8]
Found Entropy: 0
\{\text{Window: } 422 > X: [4, 5] Y: [-8, -7]
Found Entropy: 0
\{\text{Window: } 423 > X: [4, 5] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 424 \rangle X: [4, 5] Y: [-6, -5]
Found Entropy: 0
<Window: 425 > X:[ 4 , 5 ] Y:[ -5 , -4 ]
Found Entropy: 0
\{\text{Window: } 426 > X: [4, 5] Y: [-4, -3]
Found Entropy: 0
\{\text{Window}: 427 > X: [4, 5] Y: [-3, -2]
Found Entropy: 0
\{\text{Window: } 428 > X: [4, 5] Y: [-2, -1]
Found Entropy: 0
<Window: 429 > X:[4,5] Y:[-1,0]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 430 > X:[ 4 , 5 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 431 > X:[ 4 , 5 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 432 > X:[ 4 , 5 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 433 > X:[4,5] Y:[3,4]
Found Entropy: 0
<Window: 434 > X:[4,5] Y:[4,5]
Found Entropy: 0
<Window: 435 > X:[5,6] Y:[-9,-8]
Found Entropy: 0
<Window: 436 > X:[5,6] Y:[-8,-7]
Found Entropy: 0
<Window: 437 > X:[5,6] Y:[-7,-6]
Found Entropy: 0
```

```
<Window: 438 > X:[5,6] Y:[-6,-5]
Found Entropy: 0
<Window: 439 > X:[5,6] Y:[-5,-4]
Found Entropy: 0
<Window: 440 > X:[5,6] Y:[-4,-3]
Found Entropy: 0
\{\text{Window: } 441 > X: [5, 6] Y: [-3, -2]
Found Entropy: 0
\{\text{Window: } 442 > X: [5, 6] Y: [-2, -1]
Found Entropy: 0
\{\text{Window}: 443 > X: [5, 6] Y: [-1, 0]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.6365141682948128
<Window: 444 > X:[5,6] Y:[0,1]
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.6931471805599453
<Window: 445 > X:[5,6] Y:[1,2]
Found Entropy: 0
<Window: 446 > X:[ 5 , 6 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 447 > X:[5,6] Y:[3,4]
Found Entropy: 0
<Window: 448 > X:[5,6] Y:[4,5]
Found Entropy: 0
<Window: 449 > X:[ 6 , 7 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 450 > X:[6,7] Y:[-8,-7]
Found Entropy: 0
<Window: 451 > X:[ 6 , 7 ] Y:[ -7 , -6 ]
Found Entropy: 0
\{\text{Window: } 452 > X: [6, 7] Y: [-6, -5]
Found Entropy: 0
<Window: 453 > X:[ 6 , 7 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 454 > X:[6,7] Y:[-4,-3]
Found Entropy: 0
<Window: 455 > X:[ 6 , 7 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 456 > X:[ 6 , 7 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 457 > X:[6, 7] Y:[-1, 0]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.6365141682948128
```

```
<Window: 458 > X:[6,7] Y:[0,1]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 1.0986122886681096
<Window: 459 > X:[6,7] Y:[1,2]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 460 > X:[6, 7] Y:[2, 3]
Found Entropy: 0
<Window: 461 > X:[ 6 , 7 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 462 > X:[ 6 , 7 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 463 > X:[ 7 , 8 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 464 > X:[ 7 , 8 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 465 > X:[7,8] Y:[-7,-6]
Found Entropy: 0
<Window: 466 > X:[ 7 , 8 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 467 > X:[ 7 , 8 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 468 > X:[7,8] Y:[-4,-3]
Found Entropy: 0
<Window: 469 > X:[ 7 , 8 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 470 > X:[ 7 , 8 ] Y:[ -2 , -1 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 471 > X:[ 7 , 8 ] Y:[ -1 , 0 ]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 472 > X:[ 7 , 8 ] Y:[ 0 , 1 ]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.5623351446188083
<Window: 473 > X:[7,8] Y:[1,2]
Found Entropy: 0
<Window: 474 > X:[ 7 , 8 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 475 > X:[7,8] Y:[3,4]
Found Entropy: 0
<Window: 476 > X:[ 7 , 8 ] Y:[ 4 , 5 ]
```

```
Found Entropy: 0
<Window: 477 > X:[8, 9] Y:[-9, -8]
Found Entropy: 0
<Window: 478 > X:[8, 9] Y:[-8, -7]
Found Entropy: 0
<Window: 479 > X:[8, 9] Y:[-7, -6]
Found Entropy: 0
<Window: 480 > X:[8,9] Y:[-6,-5]
Found Entropy: 0
\langle \text{Window}: 481 \rangle X: [8, 9] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 482 \rangle X: [8, 9] Y: [-4, -3]
Found Entropy: 0
<Window: 483 > X:[8,9] Y:[-3,-2]
Found Entropy: 0
\langle \text{Window}: 484 \rangle X: [8, 9] Y: [-2, -1]
Found Entropy: 0
<Window: 485 > X:[8,9] Y:[-1,0]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.6365141682948128
<Window: 486 > X:[ 8 , 9 ] Y:[ 0 , 1 ]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 487 > X:[8, 9] Y:[1, 2]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 488 > X:[8,9] Y:[2,3]
Found Entropy: 0
<Window: 489 > X:[8, 9] Y:[3, 4]
Found Entropy: 0
<Window: 490 > X:[8, 9] Y:[4, 5]
Found Entropy: 0
<Window: 491 > X:[ 9 , 10 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 492 > X:[ 9 , 10 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 493 > X:[ 9 , 10 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 494 > X:[ 9 , 10 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 495 > X:[ 9 , 10 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 496 > X:[ 9 , 10 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 497 > X:[9, 10] Y:[-3, -2]
```

```
Found Entropy: 0
<Window: 498 > X:[ 9 , 10 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 499 > X:[9, 10] Y:[-1, 0]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 500 > X:[ 9 , 10 ] Y:[ 0 , 1 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 501 > X:[ 9 , 10 ] Y:[ 1 , 2 ]
Found Entropy: 0
\{\text{Window}: 502 > X: [9, 10] Y: [2, 3]
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.6931471805599453
<Window: 503 > X:[ 9 , 10 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 504 > X:[ 9 , 10 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 505 \rangle X: [10, 11] Y: [-9, -8]
Found Entropy: 0
<Window: 506 > X:[ 10 , 11 ] Y:[ -8 , -7 ]
Found Entropy: 0
\{Window: 507 > X:[10, 11] Y:[-7, -6]
Found Entropy: 0
<Window: 508 > X:[ 10 , 11 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 509 > X:[ 10 , 11 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 510 > X:[ 10 , 11 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 511 > X:[ 10 , 11 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 512 > X:[10, 11] Y:[-2, -1]
Found Entropy: 0
<Window: 513 > X:[ 10 , 11 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 514 > X:[ 10 , 11 ] Y:[ 0 , 1 ]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 1.0397207708399179
<Window: 515 > X:[ 10 , 11 ] Y:[ 1 , 2 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 516 > X:[ 10 , 11 ] Y:[ 2 , 3 ]
Found Entropy: 0
```

```
<Window: 517 > X:[ 10 , 11 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 518 > X:[ 10 , 11 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 519 > X:[ 11 , 12 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 520 > X:[ 11 , 12 ] Y:[ -8 , -7 ]
Found Entropy: 0
\{Window: 521 > X:[11, 12] Y:[-7, -6]
Found Entropy: 0
<Window: 522 > X:[ 11 , 12 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 523 > X:[ 11 , 12 ] Y:[ -5 , -4 ]
Found Entropy: 0
\forall \text{Window: } 524 > X:[11, 12] Y:[-4, -3]
Found Entropy: 0
\langle \text{Window}: 525 \rangle X: [11, 12] Y: [-3, -2]
Found Entropy: 0
\{Window: 526 > X:[11, 12] Y:[-2, -1]
Found Entropy: 0
<Window: 527 > X:[ 11 , 12 ] Y:[ -1 , 0 ]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
<Window: 528 > X:[ 11 , 12 ] Y:[ 0 , 1 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 529 > X:[ 11 , 12 ] Y:[ 1 , 2 ]
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.6931471805599453
<Window: 530 > X:[ 11 , 12 ] Y:[ 2 , 3 ]
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 531 > X:[ 11 , 12 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 532 > X:[ 11 , 12 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 533 > X:[ 12 , 13 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window: } 534 \rangle \text{ X:[ } 12 \text{ , } 13 \text{ ] } \text{ Y:[ } -8 \text{ , } -7 \text{ ]}
Found Entropy: 0
<Window: 535 > X:[ 12 , 13 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 536 > X:[ 12 , 13 ] Y:[ -6 , -5 ]
Found Entropy: 0
```

```
\langle \text{Window: } 537 \rangle \text{ X:[ } 12 \text{ , } 13 \text{ ] } \text{ Y:[ } -5 \text{ , } -4 \text{ ]}
Found Entropy: 0
\langle \text{Window: 538} \rangle \text{ X:[ 12 , 13 ] Y:[ -4 , -3 ]}
Found Entropy: 0
\langle \text{Window: 539} \rangle X: [12, 13] Y: [-3, -2]
Found Entropy: 0
\{\text{Window: 540} > \text{X:[12,13]} \text{Y:[-2,-1]}
Found Entropy: 0
<Window: 541 > X:[ 12 , 13 ] Y:[ -1 , 0 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 542 > X:[ 12 , 13 ] Y:[ 0 , 1 ]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 1.0986122886681096
<Window: 543 > X:[ 12 , 13 ] Y:[ 1 , 2 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 544 > X:[ 12 , 13 ] Y:[ 2 , 3 ]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 545 > X:[ 12 , 13 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 546 > X:[ 12 , 13 ] Y:[ 4 , 5 ]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.6365141682948128
<Window: 547 > X:[ 13 , 14 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 548 \rangle X: [13, 14] Y: [-8, -7]
Found Entropy: 0
<Window: 549 > X:[ 13 , 14 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 550 > X:[ 13 , 14 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 551 \rangle X:[13, 14] Y:[-5, -4]
Found Entropy: 0
\langle \text{Window}: 552 \rangle X: [13, 14] Y: [-4, -3]
Found Entropy: 0
<Window: 553 > X:[ 13 , 14 ] Y:[ -3 , -2 ]
Found Entropy: 0
```

```
\langle \text{Window}: 554 \rangle X: [13, 14] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 555 \rangle X: [13, 14] Y: [-1, 0]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 556 > X:[ 13 , 14 ] Y:[ 0 , 1 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 557 > X:[ 13 , 14 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 558 > X:[ 13 , 14 ] Y:[ 2 , 3 ]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.6365141682948128
<Window: 559 > X:[ 13 , 14 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 560 > X:[ 13 , 14 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 561 > X:[ 14 , 15 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 562 > X:[ 14 , 15 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 563 > X:[14, 15] Y:[-7, -6]
Found Entropy: 0
<Window: 564 > X:[ 14 , 15 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 565 > X:[ 14 , 15 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 566 > X:[ 14 , 15 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 567 \rangle X: [14, 15] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 568 \rangle X: [14, 15] Y: [-2, -1]
Found Entropy: 0
<Window: 569 > X:[14, 15] Y:[-1, 0]
Found Entropy: 0
<Window: 570 > X:[ 14 , 15 ] Y:[ 0 , 1 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 571 > X:[ 14 , 15 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 572 > X:[ 14 , 15 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 573 > X:[ 14 , 15 ] Y:[ 3 , 4 ]
Found a sample of class: 2
Found Entropy: 0.0
```

```
<Window: 574 > X:[ 14 , 15 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 575 > X:[ 15 , 16 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 576 > X:[ 15 , 16 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 577 > X:[ 15 , 16 ] Y:[ -7 , -6 ]
Found Entropy: 0
\langle \text{Window}: 578 \rangle X: [15, 16] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window: 579} \rangle X: [15, 16] Y: [-5, -4]
Found Entropy: 0
<Window: 580 > X:[ 15 , 16 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: 581} \rangle \text{ X:[ 15 , 16 ] Y:[ -3 , -2 ]}
Found Entropy: 0
\langle \text{Window: 582} \rangle X: [15, 16] Y: [-2, -1]
Found Entropy: 0
<Window: 583 > X:[ 15 , 16 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 584 > X:[ 15 , 16 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 585 > X:[ 15 , 16 ] Y:[ 1 , 2 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 586 > X:[ 15 , 16 ] Y:[ 2 , 3 ]
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 587 > X:[ 15 , 16 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 588 > X:[ 15 , 16 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 589 > X:[ 16 , 17 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 590 > X:[ 16 , 17 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 591 > X:[ 16 , 17 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 592 > X:[ 16 , 17 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 593 > X:[ 16 , 17 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 594 > X:[ 16 , 17 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 595 \rangle X: [16, 17] Y: [-3, -2]
```

```
Found Entropy: 0
<Window: 596 > X:[ 16 , 17 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 597 > X:[ 16 , 17 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 598 > X:[ 16 , 17 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 599 > X:[ 16 , 17 ] Y:[ 1 , 2 ]
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 600 > X:[ 16 , 17 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 601 > X:[ 16 , 17 ] Y:[ 3 , 4 ]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 1.0986122886681096
<Window: 602 > X:[ 16 , 17 ] Y:[ 4 , 5 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 603 > X:[ 17 , 18 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 604 > X:[17, 18] Y:[-8, -7]
Found Entropy: 0
<Window: 605 > X:[ 17 , 18 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 606 > X:[ 17 , 18 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 607 > X:[ 17 , 18 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 608 > X:[ 17 , 18 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 609 > X:[ 17 , 18 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 610 > X:[ 17 , 18 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 611 > X:[ 17 , 18 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 612 > X:[ 17 , 18 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 613 > X:[ 17 , 18 ] Y:[ 1 , 2 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 614 > X:[ 17 , 18 ] Y:[ 2 , 3 ]
Found a sample of class: 1
```

```
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 615 > X:[ 17 , 18 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 616 > X:[ 17 , 18 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 617 > X:[ 18 , 19 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 618 > X:[ 18 , 19 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 619 > X:[ 18 , 19 ] Y:[ -7 , -6 ]
Found Entropy: 0
\langle \text{Window: } 620 \rangle \text{ X:} [ 18 , 19 ] \text{ Y:} [ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 621 \rangle X: [18, 19] Y: [-5, -4]
Found Entropy: 0
<Window: 622 > X:[ 18 , 19 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 623 \rangle \text{ X:} [ 18 , 19 ] \text{ Y:} [ -3 , -2 ]
Found Entropy: 0
\langle \text{Window}: 624 \rangle X: [18, 19] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 625 \rangle X: [18, 19] Y: [-1, 0]
Found Entropy: 0
<Window: 626 > X:[ 18 , 19 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 627 > X:[ 18 , 19 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 628 > X:[ 18 , 19 ] Y:[ 2 , 3 ]
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 629 > X:[ 18 , 19 ] Y:[ 3 , 4 ]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 1.0986122886681096
<Window: 630 > X:[ 18 , 19 ] Y:[ 4 , 5 ]
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.6931471805599453
<Window: 631 > X:[ 19 , 20 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 632 > X:[ 19 , 20 ] Y:[ -8 , -7 ]
Found Entropy: 0
```

```
<Window: 633 > X:[ 19 , 20 ] Y:[ -7 , -6 ]
Found Entropy: 0
\langle \text{Window: } 634 \rangle \text{ X:} [19, 20] \text{ Y:} [-6, -5]
Found Entropy: 0
<Window: 635 > X:[ 19 , 20 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 636 > X:[ 19 , 20 ] Y:[ -4 , -3 ]
Found Entropy: 0
\{Window: 637 > X:[19, 20] Y:[-3, -2]
Found Entropy: 0
\langle \text{Window: 638} \rangle \text{ X:} [ 19 , 20 ] \text{ Y:} [ -2 , -1 ]
Found Entropy: 0
<Window: 639 > X:[ 19 , 20 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 640 > X:[ 19 , 20 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 641 > X:[ 19 , 20 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 642 > X:[19, 20] Y:[2, 3]
Found Entropy: 0
<Window: 643 > X:[ 19 , 20 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 644 > X:[ 19 , 20 ] Y:[ 4 , 5 ]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 1.0549201679861442
<Window: 645 > X:[ 20 , 21 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 646 > X:[ 20 , 21 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window}: 647 \rangle X: [20, 21] Y: [-7, -6]
Found Entropy: 0
\{\text{Window: } 648 > X: [20, 21] Y: [-6, -5]
Found Entropy: 0
\{\text{Window: } 649 > X: [20, 21] Y: [-5, -4]
Found Entropy: 0
<Window: 650 > X:[ 20 , 21 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 651 \rangle \ \text{X:} [ 20 , 21 ] \ \text{Y:} [ -3 , -2 ]
Found Entropy: 0
<Window: 652 > X:[ 20 , 21 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 653 > X:[ 20 , 21 ] Y:[ -1 , 0 ]
Found Entropy: 0
```

```
<Window: 654 > X:[ 20 , 21 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 655 > X:[ 20 , 21 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 656 > X:[ 20 , 21 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 657 > X:[ 20 , 21 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 658 > X:[ 20 , 21 ] Y:[ 4 , 5 ]
Found a sample of class: 0
Found Entropy: 0.0
Total Count: 658
Expected Count: 658
OKAY: True
----Done--- 26.30719326841124
Done!
-26 21 -9 5
You Can use this matrix now.
X \min = -26
X \max = 21
Y_min = -9
Y_{max} = 5
And the Matrix Shape: 47 * 14
\{\text{Window: 1 > X:[-26,-25] Y:[-9,-8]}
Found Entropy: 0
\langle \text{Window: 2} \rangle \text{ X:[-26,-25] Y:[-8,-7]}
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.6931471805599453
\langle \text{Window: 3} \rangle \text{ X:[-26,-25] Y:[-7,-6]}
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.5623351446188083
\langle \text{Window: 4} \rangle \text{ X:[-26,-25] Y:[-6,-5]}
Found Entropy: 0
\langle \text{Window: 5} \rangle \text{ X:[-26,-25] Y:[-5,-4]}
Found Entropy: 0
\langle \text{Window: 6} \rangle \text{ X:[-26, -25] Y:[-4, -3]}
Found Entropy: 0
<Window: 7 > X:[ -26 , -25 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window: 8 > X:[-26,-25] Y:[-2,-1]}
Found Entropy: 0
<Window: 9 > X:[ -26 , -25 ] Y:[ -1 , 0 ]
```

```
Found Entropy: 0
\forall \text{Window: } 10 > X:[-26, -25] Y:[0, 1]
Found Entropy: 0
<Window: 11 > X:[ -26 , -25 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 12 > X:[ -26 , -25 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 13 > X:[ -26 , -25 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 14 > X:[ -26 , -25 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 15 \rangle X: [-25, -24] Y: [-9, -8]
Found Entropy: 0
<Window: 16 > X:[ -25 , -24 ] Y:[ -8 , -7 ]
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 0.6931471805599453
\{Window: 17 > X:[ -25 , -24 ] Y:[ -7 , -6 ]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.6931471805599453
<Window: 18 > X:[ -25 , -24 ] Y:[ -6 , -5 ]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 19 \rangle X: [-25, -24] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 20 \rangle X: [-25, -24] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 21 \rangle X: [-25, -24] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 22 \rangle X: [-25, -24] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 23 \rangle X: [-25, -24] Y: [-1, 0]
Found Entropy: 0
\{\text{Window: } 24 > X: [-25, -24] \ Y: [0, 1]
Found Entropy: 0
\langle \text{Window}: 25 \rangle X: [-25, -24] Y: [1, 2]
Found Entropy: 0
<Window: 26 > X:[-25, -24] Y:[2, 3]
Found Entropy: 0
<Window: 27 > X:[ -25 , -24 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window: 28} \rangle X: [-25, -24] Y: [4, 5]
Found Entropy: 0
\forall 1 = 1  \forall 1 = 1  \forall 2 = 1  \forall 1 = 1  \forall 1 = 1  \forall 1 = 1  \forall 2 = 1  \forall 3 = 1  \forall 4 = 1  \forall 1 = 1 
Found Entropy: 0
```

```
\langle \text{Window}: 30 \rangle X: [-24, -23] Y: [-8, -7]
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.6931471805599453
\langle \text{Window}: 31 > X: [-24, -23] Y: [-7, -6]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.6931471805599453
\langle \text{Window}: 32 \rangle X: [-24, -23] Y: [-6, -5]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 33 \rangle X: [-24, -23] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 34 \rangle X: [-24, -23] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 35 \rangle X: [-24, -23] Y: [-3, -2]
Found Entropy: 0
<Window: 36 > X:[ -24 , -23 ] Y:[ -2 , -1 ]
Found Entropy: 0
\langle \text{Window: } 37 \rangle \text{ X: [ } -24 \text{ , } -23 \text{ ] } \text{ Y: [ } -1 \text{ , } 0 \text{ ]}
Found Entropy: 0
<Window: 38 > X:[-24, -23] Y:[0, 1]
Found Entropy: 0
\langle \text{Window}: 39 \rangle X: [-24, -23] Y: [1, 2]
Found Entropy: 0
<Window: 40 > X:[ -24 , -23 ] Y:[ 2 , 3 ]
Found Entropy: 0
\langle \text{Window}: 41 \rangle X: [-24, -23] Y: [3, 4]
Found Entropy: 0
\{\text{Window: } 42 > X:[-24, -23] Y:[4, 5]
Found Entropy: 0
<Window: 43 > X:[-23, -22] Y:[-9, -8]
Found Entropy: 0
\langle \text{Window}: 44 \rangle X: [-23, -22] Y: [-8, -7]
Found a sample of class: 1
Found Entropy: 0.0
\{\text{Window: } 45 > \text{X:} [-23, -22] \text{ Y:} [-7, -6] \}
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 1.0397207708399179
\forall 1.5 \text{ Window: } 46 > \text{X:[} -23 , -22 ] \text{ Y:[} -6 , -5 ]
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.6931471805599453
```

```
\langle \text{Window}: 47 \rangle X: [-23, -22] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window: } 48 \rangle \text{ X: [ } -23 \text{ , } -22 \text{ ] } \text{ Y: [ } -4 \text{ , } -3 \text{ ]}
Found Entropy: 0
\{Window: 49 > X: [ -23 , -22 ] Y: [ -3 , -2 ] <math>\}
Found Entropy: 0
\langle \text{Window}: 50 \rangle X: [-23, -22] Y: [-2, -1]
Found Entropy: 0
<Window: 51 > X:[ -23 , -22 ] Y:[ -1 , 0 ]
Found Entropy: 0
\langle \text{Window}: 52 \rangle X: [-23, -22] Y: [0, 1]
Found Entropy: 0
\langle \text{Window: 53} \rangle X: [-23, -22] Y: [1, 2]
Found Entropy: 0
<Window: 54 > X:[ -23 , -22 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 55 > X:[ -23 , -22 ] Y:[ 3 , 4 ]
Found Entropy: 0
\forall x \in X : [-23, -22] Y : [4, 5]
Found Entropy: 0
<Window: 57 > X:[ -22 , -21 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window: 58} \rangle \text{ X: [ -22 , -21 ] Y: [ -8 , -7 ]}
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
\langle \text{Window}: 59 \rangle X: [-22, -21] Y: [-7, -6]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 60 \rangle X: [-22, -21] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 61 \rangle X: [-22, -21] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 62 \rangle X: [-22, -21] Y: [-4, -3]
Found Entropy: 0
\{Window: 63 > X: [ -22 , -21 ] Y: [ -3 , -2 ]
Found Entropy: 0
\langle \text{Window}: 64 \rangle X: [-22, -21] Y: [-2, -1]
Found Entropy: 0
<Window: 65 > X:[ -22 , -21 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 66 > X:[-22, -21] Y:[0, 1]
Found Entropy: 0
\forall \text{Window: } 67 > X:[-22, -21] Y:[1, 2]
Found Entropy: 0
\langle \text{Window: 68} \rangle \ X: [-22, -21] \ Y: [2, 3]
Found Entropy: 0
```

```
<Window: 69 > X:[ -22 , -21 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window}: 70 \rangle X: [-22, -21] Y: [4, 5]
Found Entropy: 0
\{Window: 71 > X:[ -21 , -20 ] Y:[ -9 , -8 ]
Found a sample of class: 2
Found Entropy: 0.0
\langle \text{Window: 72} \rangle \text{ X: [-21, -20] Y: [-8, -7]}
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 1.0986122886681096
\{Window: 73 > X:[ -21 , -20 ] Y:[ -7 , -6 ]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 1.0114042647073518
\langle \text{Window}: 74 \rangle X: [-21, -20] Y: [-6, -5]
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6931471805599453
\langle \text{Window}: 75 \rangle X: [-21, -20] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 76 \rangle X: [-21, -20] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 77 > X: [ -21 , -20 ] Y: [ -3 , -2 ]
Found Entropy: 0
\{Window: 78 > X:[ -21 , -20 ] Y:[ -2 , -1 ]
Found Entropy: 0
\{\text{Window: 79} > \text{X:} [-21, -20] \text{ Y:} [-1, 0]
Found Entropy: 0
\langle \text{Window: } 80 \rangle \text{ X: [} -21 , -20 ] \text{ Y: [} 0 , 1 ]
Found Entropy: 0
<Window: 81 > X:[ -21 , -20 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 82 > X:[ -21 , -20 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 83 > X:[ -21 , -20 ] Y:[ 3 , 4 ]
Found Entropy: 0
\{\text{Window: 84} > \text{X:[-21,-20]} \text{Y:[4,5]}
Found Entropy: 0
\langle \text{Window: } 85 \rangle \text{ X: } [-20, -19] \text{ Y: } [-9, -8]
Found Entropy: 0
\langle \text{Window}: 86 \rangle X: [-20, -19] Y: [-8, -7]
Found a sample of class: 0
```

```
Found Entropy: 0.0
\langle \text{Window: } 87 \rangle \text{ X: } [-20, -19] \text{ Y: } [-7, -6]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 1.0397207708399179
\langle \text{Window: 88} \rangle \text{ X: [ -20 , -19 ] Y: [ -6 , -5 ]}
Found Entropy: 0
\langle \text{Window: } 89 \rangle \text{ X: } [-20, -19] \text{ Y: } [-5, -4]
Found Entropy: 0
\langle \text{Window: } 90 \rangle \text{ X: [ } -20 \text{ , } -19 \text{ ] } \text{ Y: [ } -4 \text{ , } -3 \text{ ]}
Found Entropy: 0
<Window: 91 > X:[ -20 , -19 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window: } 92 \rangle \text{ X: [} -20 , -19 ] \text{ Y: [} -2 , -1 ]
Found Entropy: 0
\langle \text{Window: 93} \rangle \text{ X: [ -20 , -19 ] Y: [ -1 , 0 ]}
Found Entropy: 0
\langle \text{Window: } 94 \rangle \text{ X: [ } -20 \text{ , } -19 \text{ ] } \text{ Y: [ } 0 \text{ , } 1 \text{ ]}
Found Entropy: 0
\langle \text{Window: 95} \rangle X: [-20, -19] Y: [1, 2]
Found Entropy: 0
\{\text{Window: 96} > \text{X:[-20,-19]} \text{Y:[2,3]}
Found Entropy: 0
\langle \text{Window}: 97 \rangle X: [-20, -19] Y: [3, 4]
Found Entropy: 0
<Window: 98 > X:[ -20 , -19 ] Y:[ 4 , 5 ]
Found Entropy: 0
\forall 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.5 = 1.
Found Entropy: 0
\langle \text{Window}: 100 \rangle X: [-19, -18] Y: [-8, -7]
Found a sample of class: 1
Found Entropy: 0.0
\langle \text{Window}: 101 \rangle X: [-19, -18] Y: [-7, -6]
Found Entropy: 0
<Window: 102 > X:[ -19 , -18 ] Y:[ -6 , -5 ]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window: } 103 \rangle \ \text{X:[} -19 \ , -18 \ ] \ \text{Y:[} -5 \ , -4 \ ]
Found Entropy: 0
\langle \text{Window: } 104 \rangle \text{ X: [ } -19 \text{ , } -18 \text{ ] } \text{ Y: [ } -4 \text{ , } -3 \text{ ]}
Found Entropy: 0
\langle \text{Window: } 105 \rangle \text{ X:[} -19 , -18 ] \text{ Y:[} -3 , -2 ]
Found Entropy: 0
\langle \text{Window}: 106 \rangle X: [-19, -18] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window: } 107 \rangle \text{ X:[} -19 , -18 ] \text{ Y:[} -1 , 0 ]
```

```
Found Entropy: 0
\langle \text{Window: } 108 \rangle \ \text{X:[} -19 \ , -18 \ ] \ \text{Y:[} 0 \ , 1 \ ]
Found Entropy: 0
\forall 109 > X:[-19, -18] Y:[1, 2]
Found Entropy: 0
\langle \text{Window: } 110 \rangle \ \text{X:[} -19 \ , -18 \ ] \ \text{Y:[} 2 \ , 3 \ ]
Found Entropy: 0
\langle \text{Window: } 111 \rangle \ \text{X:[} -19 \ , -18 \ ] \ \text{Y:[} 3 \ , 4 \ ]
Found Entropy: 0
<Window: 112 > X:[ -19 , -18 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 113 \rangle \text{ X:[} -18 , -17 ] \text{ Y:[} -9 , -8 ]
Found Entropy: 0
<Window: 114 > X:[ -18 , -17 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window: } 115 \rangle \text{ X:[} -18 , -17 ] \text{ Y:[} -7 , -6 ]
Found Entropy: 0
\langle \text{Window}: 116 \rangle X: [-18, -17] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 117 \rangle X: [-18, -17] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window: } 118 \rangle \ \text{X:[} -18 \ , -17 \ ] \ \text{Y:[} -4 \ , -3 \ ]
Found Entropy: 0
<Window: 119 > X:[ -18 , -17 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window}: 120 \rangle X: [-18, -17] Y: [-2, -1]
Found Entropy: 0
<Window: 121 > X:[ -18 , -17 ] Y:[ -1 , 0 ]
Found Entropy: 0
\forall \text{Window: } 122 > X:[-18, -17] Y:[0, 1]
Found Entropy: 0
\forall 123 > X:[-18, -17] Y:[1, 2]
Found Entropy: 0
<Window: 124 > X:[ -18 , -17 ] Y:[ 2 , 3 ]
Found Entropy: 0
\langle \text{Window: } 125 \rangle \text{ X:[} -18 , -17 ] \text{ Y:[} 3 , 4 ]
Found Entropy: 0
\langle \text{Window}: 126 \rangle X: [-18, -17] Y: [4, 5]
Found Entropy: 0
\langle \text{Window}: 127 \rangle X: [-17, -16] Y: [-9, -8]
Found Entropy: 0
<Window: 128 > X:[ -17 , -16 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 129 > X:[ -17 , -16 ] Y:[ -7 , -6 ]
Found Entropy: 0
\langle \text{Window: } 130 \rangle \text{ X:[} -17 , -16 ] \text{ Y:[} -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 131 \rangle X: [-17, -16] Y: [-5, -4]
```

```
Found Entropy: 0
\forall Window: 132 > X:[ -17 , -16 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 133 > X:[ -17 , -16 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window: } 134 \rangle \ \text{X:[} -17 \ , -16 \ ] \ \text{Y:[} -2 \ , -1 \ ]
Found Entropy: 0
\langle \text{Window: } 135 \rangle \text{ X:[} -17 , -16 ] \text{ Y:[} -1 , 0 ]
Found Entropy: 0
<Window: 136 > X:[ -17 , -16 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 137 > X:[ -17 , -16 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 138 > X:[ -17 , -16 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 139 > X:[ -17 , -16 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 140 > X:[ -17 , -16 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 141 > X: [-16, -15] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window: } 142 \rangle \ \text{X:[} -16 \ , -15 \ ] \ \text{Y:[} -8 \ , -7 \ ]
Found Entropy: 0
<Window: 143 > X:[ -16 , -15 ] Y:[ -7 , -6 ]
Found Entropy: 0
\langle \text{Window}: 144 \rangle X: [-16, -15] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window: } 145 \rangle \text{ X:[} -16 , -15 ] \text{ Y:[} -5 , -4 ]
Found Entropy: 0
<Window: 146 > X:[ -16 , -15 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 147 \rangle \text{ X:[} -16 , -15 ] \text{ Y:[} -3 , -2 ]
Found Entropy: 0
\{Window: 148 > X: [ -16 , -15 ] Y: [ -2 , -1 ] 
Found Entropy: 0
\langle \text{Window: } 149 \rangle \ \text{X:[} -16 \ , -15 \ ] \ \text{Y:[} -1 \ , 0 \ ]
Found Entropy: 0
\langle \text{Window: } 150 \rangle \text{ X:} [ -16 , -15 ] \text{ Y:} [ 0 , 1 ]
Found Entropy: 0
\langle \text{Window: } 151 \rangle \ \text{X:[} -16 \ , -15 \ ] \ \text{Y:[} 1 \ , 2 \ ]
Found Entropy: 0
<Window: 152 > X:[ -16 , -15 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 153 > X:[ -16 , -15 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 154 > X:[ -16 , -15 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 155 \rangle X: [-15, -14] Y: [-9, -8]
```

```
Found Entropy: 0
<Window: 156 > X:[ -15 , -14 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 157 > X:[ -15 , -14 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 158 > X:[ -15 , -14 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 159 \rangle X: [-15, -14] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 160 \rangle X: [-15, -14] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 161 \rangle X: [-15, -14] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 162 \rangle X: [-15, -14] Y: [-2, -1]
Found Entropy: 0
<Window: 163 > X:[ -15 , -14 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 164 > X:[ -15 , -14 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 165 > X:[ -15 , -14 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window}: 166 \rangle X: [-15, -14] Y: [2, 3]
Found Entropy: 0
<Window: 167 > X:[ -15 , -14 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 168 > X:[ -15 , -14 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 169 \rangle \ \text{X:[} -14 \ , -13 \ ] \ \text{Y:[} -9 \ , -8 \ ]
Found Entropy: 0
\forall 170 > X:[-14, -13] Y:[-8, -7]
Found Entropy: 0
\forall \text{Window: } 171 > X:[-14, -13] Y:[-7, -6]
Found Entropy: 0
\{Window: 172 > X:[-14, -13] Y:[-6, -5]
Found Entropy: 0
\langle \text{Window}: 173 \rangle X: [-14, -13] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 174 \rangle X: [-14, -13] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 175 \rangle X: [-14, -13] Y: [-3, -2]
Found Entropy: 0
<Window: 176 > X:[ -14 , -13 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 177 > X:[ -14 , -13 ] Y:[ -1 , 0 ]
Found Entropy: 0
\langle \text{Window: } 178 \rangle X:[-14, -13] Y:[0, 1]
Found Entropy: 0
\forall x = 179 > x : [ -14 , -13 ] Y : [ 1 , 2 ]
```

```
Found Entropy: 0
\forall 180 > X:[-14, -13] Y:[2, 3]
Found Entropy: 0
<Window: 181 > X:[ -14 , -13 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window: } 182 \rangle \ \text{X:[} -14 \ , -13 \ ] \ \text{Y:[} 4 \ , 5 \ ]
Found Entropy: 0
\langle \text{Window: } 183 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} -9 \ , -8 \ ]
Found Entropy: 0
\langle \text{Window}: 184 \rangle X: [-13, -12] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window: } 185 \rangle \text{ X:[} -13 , -12 ] \text{ Y:[} -7 , -6 ]
Found Entropy: 0
<Window: 186 > X:[ -13 , -12 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 187 \rangle \text{ X:[} -13 , -12 ] \text{ Y:[} -5 , -4 ]
Found Entropy: 0
\forall Window: 188 > X:[ -13 , -12 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 189 \rangle X: [-13, -12] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window: } 190 \rangle \ \text{X:[} -13 , -12 \ ] \ \text{Y:[} -2 , -1 \ ]
Found Entropy: 0
\langle \text{Window}: 191 \rangle X: [-13, -12] Y: [-1, 0]
Found Entropy: 0
\langle \text{Window}: 192 \rangle X: [-13, -12] Y: [0, 1]
Found Entropy: 0
\langle \text{Window: 193} \rangle X: [-13, -12] Y: [1, 2]
Found Entropy: 0
\forall 194 > X:[-13,-12] Y:[2,3]
Found Entropy: 0
\langle \text{Window: } 195 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} 3 \ , 4 \ ]
Found Entropy: 0
\{Window: 196 > X:[-13, -12] Y:[4, 5]
Found Entropy: 0
\langle \text{Window: } 197 \rangle \ \text{X:[} -12 , -11 \ ] \ \text{Y:[} -9 , -8 \ ]
Found Entropy: 0
\langle \text{Window: } 198 \rangle \ \text{X:[} -12 \ , -11 \ ] \ \text{Y:[} -8 \ , -7 \ ]
Found Entropy: 0
\langle \text{Window: } 199 \rangle \ \text{X:[} -12 , -11 \ ] \ \text{Y:[} -7 , -6 \ ]
Found Entropy: 0
<Window: 200 > X:[ -12 , -11 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 201 > X:[ -12 , -11 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 202 \rangle X: [-12, -11] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 203 \rangle X: [-12, -11] Y: [-3, -2]
```

```
Found Entropy: 0
\forall \text{Window: } 204 > X:[-12, -11] Y:[-2, -1]
Found Entropy: 0
<Window: 205 > X:[ -12 , -11 ] Y:[ -1 , 0 ]
Found Entropy: 0
\langle \text{Window: } 206 \rangle \ X:[-12, -11] \ Y:[0, 1]
Found Entropy: 0
\langle \text{Window: } 207 \rangle \text{ X:[} -12 , -11 ] \text{ Y:[} 1 , 2 ]
Found Entropy: 0
<Window: 208 > X:[ -12 , -11 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 209 > X:[ -12 , -11 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 210 > X:[ -12 , -11 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle Window: 211 \rangle X:[-11, -10] Y:[-9, -8]
Found Entropy: 0
\langle \text{Window}: 212 \rangle X: [-11, -10] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 213 \rangle X: [-11, -10] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 214 \rangle X: [-11, -10] Y: [-6, -5]
Found Entropy: 0
<Window: 215 > X:[ -11 , -10 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 216 \rangle X: [-11, -10] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 217 \rangle X:[-11, -10] Y:[-3, -2]
Found Entropy: 0
\forall X: [-11, -10] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window: } 219 \rangle X:[-11, -10] Y:[-1, 0]
Found Entropy: 0
\{Window: 220 > X:[-11, -10] Y:[0, 1]
Found Entropy: 0
<Window: 221 > X:[ -11 , -10 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 222 > X:[ -11 , -10 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 223 > X:[ -11 , -10 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 224 > X:[ -11 , -10 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 225 > X:[ -10 , -9 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 226 \rangle X: [-10, -9] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 227 \rangle X:[-10, -9] Y:[-7, -6]
```

```
Found Entropy: 0
<Window: 228 > X:[ -10 , -9 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle Window: 229 \rangle X:[-10, -9] Y:[-5, -4]
Found Entropy: 0
\langle \text{Window: } 230 \rangle \text{ X:[} -10 , -9 ] \text{ Y:[} -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 231 \rangle \text{ X:[} -10 , -9 ] \text{ Y:[} -3 , -2 ]
Found Entropy: 0
\langle \text{Window}: 232 \rangle X: [-10, -9] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window: } 233 \rangle X: [-10, -9] Y: [-1, 0]
Found Entropy: 0
<Window: 234 > X:[ -10 , -9 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 235 > X:[ -10 , -9 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 236 > X:[ -10 , -9 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 237 > X:[ -10 , -9 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 238 > X:[ -10 , -9 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 239 \rangle X: [ -9 , -8 ] Y: [ -9 , -8 ]
Found Entropy: 0
<Window: 240 > X:[ -9 , -8 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window: } 241 \rangle \ \text{X:[} -9 \ , -8 \ ] \ \text{Y:[} -7 \ , -6 \ ]
Found Entropy: 0
<Window: 242 > X:[ -9 , -8 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 243 > X:[ -9 , -8 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 244 > X:[-9, -8] Y:[-4, -3]
Found Entropy: 0
\langle \text{Window: } 245 \rangle \ \text{X:[} -9 \ , -8 \ ] \ \text{Y:[} -3 \ , -2 \ ]
Found Entropy: 0
\langle \text{Window}: 246 \rangle X: [-9, -8] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window: } 247 \rangle \text{ X:[} -9 , -8 ] \text{ Y:[} -1 , 0 ]
Found Entropy: 0
<Window: 248 > X:[ -9 , -8 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 249 \rangle X:[-9, -8] Y:[1, 2]
Found Entropy: 0
<Window: 250 > X:[ -9 , -8 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 251 > X:[ -9 , -8 ] Y:[ 3 , 4 ]
```

```
Found Entropy: 0
\langle \text{Window}: 252 \rangle X:[-9, -8] Y:[4, 5]
Found Entropy: 0
<Window: 253 > X:[ -8 , -7 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 254 \rangle X: [-8, -7] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 255 \rangle X: [-8, -7] Y: [-7, -6]
Found Entropy: 0
<Window: 256 > X:[ -8 , -7 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 257 > X:[ -8 , -7 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 258 > X:[-8, -7] Y:[-4, -3]
Found Entropy: 0
\langle \text{Window}: 259 \rangle X: [-8, -7] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 260 \rangle X: [-8, -7] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 261 \rangle X: [-8, -7] Y: [-1, 0]
Found Entropy: 0
<Window: 262 > X:[ -8 , -7 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 263 > X:[ -8 , -7 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle Window: 264 \rangle X: [-8, -7] Y: [2, 3]
Found Entropy: 0
<Window: 265 > X:[ -8 , -7 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 266 > X:[ -8 , -7 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 267 \rangle X: [-7, -6] Y: [-9, -8]
Found Entropy: 0
<Window: 268 > X:[ -7 , -6 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window: } 269 \rangle \ \text{X:[} -7 \ , -6 \ ] \ \text{Y:[} -7 \ , -6 \ ]
Found Entropy: 0
\langle \text{Window}: 270 \rangle X: [-7, -6] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window: } 271 \rangle X:[-7, -6] Y:[-5, -4]
Found Entropy: 0
\langle \text{Window}: 272 \rangle X: [-7, -6] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 273 \rangle X: [-7, -6] Y: [-3, -2]
Found Entropy: 0
\forall x = 1 
Found Entropy: 0
<Window: 275 > X:[ -7 , -6 ] Y:[ -1 , 0 ]
```

```
Found Entropy: 0
<Window: 276 > X:[ -7 , -6 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 277 > X:[-7, -6] Y:[1, 2]
Found Entropy: 0
\langle \text{Window}: 278 \rangle X:[-7,-6] Y:[2,3]
Found Entropy: 0
<Window: 279 > X:[ -7 , -6 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window}: 280 \rangle X: [-7, -6] Y: [4, 5]
Found Entropy: 0
<Window: 281 > X:[ -6 , -5 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window: } 282 \rangle X: [-6, -5] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window: 283} \rangle X: [-6, -5] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window: } 284 \rangle \ \text{X:[} -6 \ , -5 \ ] \ \text{Y:[} -6 \ , -5 \ ]
Found Entropy: 0
\langle \text{Window}: 285 \rangle X: [-6, -5] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window: } 286 \rangle \ \text{X:[} -6 \ , -5 \ ] \ \text{Y:[} -4 \ , -3 \ ]
Found Entropy: 0
\langle \text{Window}: 287 \rangle X: [-6, -5] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 288 \rangle X: [-6, -5] Y: [-2, -1]
Found Entropy: 0
<Window: 289 > X:[ -6 , -5 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 290 > X:[ -6 , -5 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 291 > X:[ -6 , -5 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 292 > X:[ -6 , -5 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 293 > X:[ -6 , -5 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window}: 294 \rangle X: [-6, -5] Y: [4, 5]
Found Entropy: 0
\langle \text{Window}: 295 \rangle X: [-5, -4] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 296 \rangle X: [-5, -4] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window: } 297 \rangle X:[-5, -4] Y:[-7, -6]
Found Entropy: 0
\langle \text{Window: } 298 \rangle \ \text{X:[} -5 \ , -4 \ ] \ \text{Y:[} -6 \ , -5 \ ]
Found Entropy: 0
\langle \text{Window: } 299 \rangle X: [-5, -4] Y: [-5, -4]
```

```
Found Entropy: 0
<Window: 300 > X:[ -5 , -4 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 301 > X:[ -5 , -4 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window}: 302 \rangle X: [-5, -4] Y: [-2, -1]
Found Entropy: 0
<Window: 303 > X:[ -5 , -4 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 304 > X:[ -5 , -4 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 305 > X:[ -5 , -4 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 306 > X:[ -5 , -4 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 307 > X:[ -5 , -4 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 308 > X:[ -5 , -4 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 309 \rangle X: [-4, -3] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 310 \rangle X: [-4, -3] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 311 > X: [ -4 , -3 ] Y: [ -7 , -6 ]
Found Entropy: 0
\langle \text{Window}: 312 \rangle X: [-4, -3] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 313 \rangle X: [-4, -3] Y: [-5, -4]
Found Entropy: 0
<Window: 314 > X:[ -4 , -3 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 315 > X:[ -4 , -3 ] Y:[ -3 , -2 ]
Found Entropy: 0
\{Window: 316 > X: [ -4 , -3 ] Y: [ -2 , -1 ] 
Found Entropy: 0
\langle \text{Window: } 317 \rangle \text{ X: [ } -4 \text{ , } -3 \text{ ] } \text{ Y: [ } -1 \text{ , } 0 \text{ ]}
Found Entropy: 0
<Window: 318 > X:[ -4 , -3 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 319 \rangle X: [-4, -3] Y: [1, 2]
Found Entropy: 0
\langle \text{Window}: 320 \rangle X: [-4, -3] Y: [2, 3]
Found Entropy: 0
<Window: 321 > X:[ -4 , -3 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window}: 322 \rangle X: [-4, -3] Y: [4, 5]
Found Entropy: 0
\langle \text{Window: } 323 \rangle \text{ X:[} -3 , -2 ] \text{ Y:[} -9 , -8 ]
```

```
Found Entropy: 0
\langle \text{Window}: 324 \rangle X: [-3, -2] Y: [-8, -7]
Found Entropy: 0
<Window: 325 > X:[ -3 , -2 ] Y:[ -7 , -6 ]
Found Entropy: 0
\langle \text{Window}: 326 \rangle X: [-3, -2] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 327 \rangle X: [-3, -2] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 328 \rangle X: [-3, -2] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 329 \rangle X: [-3, -2] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 330 \rangle X: [-3, -2] Y: [-2, -1]
Found Entropy: 0
<Window: 331 > X:[ -3 , -2 ] Y:[ -1 , 0 ]
Found Entropy: 0
\langle \text{Window}: 332 \rangle X: [-3, -2] Y: [0, 1]
Found Entropy: 0
\langle \text{Window}: 333 \rangle X: [-3, -2] Y: [1, 2]
Found Entropy: 0
\langle \text{Window}: 334 \rangle X:[-3,-2] Y:[2,3]
Found Entropy: 0
\langle \text{Window}: 335 \rangle X: [-3, -2] Y: [3, 4]
Found Entropy: 0
\langle \text{Window}: 336 \rangle X: [-3, -2] Y: [4, 5]
Found Entropy: 0
\langle \text{Window}: 337 \rangle X: [-2, -1] Y: [-9, -8]
Found Entropy: 0
<Window: 338 > X:[ -2 , -1 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 339 > X:[ -2 , -1 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 340 > X:[ -2 , -1 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 341 \rangle \ \text{X:[} -2 \ , -1 \ ] \ \text{Y:[} -5 \ , -4 \ ]
Found Entropy: 0
\langle \text{Window}: 342 \rangle X: [-2, -1] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 343 \rangle X: [-2, -1] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 344 \rangle X: [-2, -1] Y: [-2, -1]
Found Entropy: 0
<Window: 345 > X:[-2, -1] Y:[-1, 0]
Found Entropy: 0
<Window: 346 > X:[ -2 , -1 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 347 \rangle X: [-2, -1] Y: [1, 2]
```

```
Found Entropy: 0
\langle \text{Window}: 348 \rangle X: [-2, -1] Y: [2, 3]
Found Entropy: 0
<Window: 349 > X:[ -2 , -1 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 350 > X:[ -2 , -1 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 351 > X:[ -1 , 0 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 352 \rangle X: [-1, 0] Y: [-8, -7]
Found Entropy: 0
<Window: 353 > X:[-1, 0] Y:[-7, -6]
Found Entropy: 0
<Window: 354 > X:[ -1 , 0 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 355 > X:[-1, 0] Y:[-5, -4]
Found Entropy: 0
<Window: 356 > X:[ -1 , 0 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 357 \rangle X: [-1, 0] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window: } 358 \rangle \text{ X:} [-1, 0] \text{ Y:} [-2, -1]
Found Entropy: 0
\langle \text{Window}: 359 \rangle X: [-1, 0] Y: [-1, 0]
Found Entropy: 0
<Window: 360 > X:[ -1 , 0 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 361 > X:[ -1 , 0 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 362 > X:[ -1 , 0 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 363 > X:[ -1 , 0 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 364 > X:[-1, 0] Y:[4, 5]
Found Entropy: 0
<Window: 365 > X:[ 0 , 1 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 366 > X:[ 0 , 1 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 367 > X:[ 0 , 1 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 368 > X:[ 0 , 1 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 369 > X:[ 0 , 1 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 370 > X:[ 0 , 1 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 371 \rangle X: [0, 1] Y: [-3, -2]
```

```
Found Entropy: 0
<Window: 372 > X:[0, 1] Y:[-2, -1]
Found Entropy: 0
<Window: 373 > X:[0, 1] Y:[-1, 0]
Found Entropy: 0
<Window: 374 > X:[0, 1] Y:[0, 1]
Found Entropy: 0
<Window: 375 > X:[ 0 , 1 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 376 > X:[ 0 , 1 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 377 > X:[ 0 , 1 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 378 > X:[ 0 , 1 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 379 \rangle X:[1,2] Y:[-9,-8]
Found Entropy: 0
<Window: 380 > X:[1,2] Y:[-8,-7]
Found Entropy: 0
\langle Window: 381 \rangle X:[1,2] Y:[-7,-6]
Found Entropy: 0
\langle \text{Window}: 382 \rangle X: [1, 2] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 383 \rangle X: [1, 2] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 384 \rangle X: [1, 2] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 385 \rangle X: [1, 2] Y: [-3, -2]
Found Entropy: 0
<Window: 386 > X:[ 1 , 2 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 387 > X:[1,2] Y:[-1,0]
Found Entropy: 0
<Window: 388 > X:[ 1 , 2 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 389 > X:[ 1 , 2 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 390 > X:[ 1 , 2 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 391 > X:[ 1 , 2 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 392 > X:[ 1 , 2 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 393 > X:[ 2 , 3 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 394 > X:[ 2 , 3 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 395 > X:[ 2 , 3 ] Y:[ -7 , -6 ]
```

```
Found Entropy: 0
<Window: 396 > X:[ 2 , 3 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 397 > X:[ 2 , 3 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 398 > X:[ 2 , 3 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 399 \rangle X: [2, 3] Y: [-3, -2]
Found Entropy: 0
\langle Window: 400 \rangle X: [2, 3] Y: [-2, -1]
Found Entropy: 0
<Window: 401 > X:[ 2 , 3 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 402 > X:[2,3] Y:[0,1]
Found Entropy: 0
<Window: 403 > X:[ 2 , 3 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 404 > X:[2,3] Y:[2,3]
Found Entropy: 0
<Window: 405 > X:[ 2 , 3 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 406 > X:[ 2 , 3 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 407 > X:[3, 4] Y:[-9, -8]
Found Entropy: 0
<Window: 408 > X:[3, 4] Y:[-8, -7]
Found Entropy: 0
<Window: 409 > X:[3,4] Y:[-7,-6]
Found Entropy: 0
<Window: 410 > X:[3, 4] Y:[-6, -5]
Found Entropy: 0
<Window: 411 > X:[ 3 , 4 ] Y:[ -5 , -4 ]
Found Entropy: 0
\{Window: 412 > X:[3,4] Y:[-4,-3]
Found Entropy: 0
<Window: 413 > X:[3, 4] Y:[-3, -2]
Found Entropy: 0
\langle \text{Window}: 414 \rangle X:[3,4] Y:[-2,-1]
Found Entropy: 0
<Window: 415 > X:[ 3 , 4 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 416 > X:[ 3 , 4 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 417 > X:[ 3 , 4 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 418 > X:[3, 4] Y:[2, 3]
Found Entropy: 0
<Window: 419 > X:[ 3 , 4 ] Y:[ 3 , 4 ]
```

```
Found Entropy: 0
<Window: 420 > X:[3, 4] Y:[4, 5]
Found Entropy: 0
\{\text{Window: } 421 > X: [4, 5] Y: [-9, -8]
Found Entropy: 0
<Window: 422 > X:[4,5] Y:[-8,-7]
Found Entropy: 0
<Window: 423 > X:[ 4 , 5 ] Y:[ -7 , -6 ]
Found Entropy: 0
\langle \text{Window}: 424 \rangle X: [4, 5] Y: [-6, -5]
Found Entropy: 0
<Window: 425 > X:[ 4 , 5 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 426 > X:[ 4 , 5 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 427 \rangle X: [4, 5] Y: [-3, -2]
Found Entropy: 0
\{\text{Window: } 428 > X: [4, 5] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 429 \rangle X: [4, 5] Y: [-1, 0]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 430 > X:[ 4 , 5 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 431 > X:[ 4 , 5 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 432 > X:[ 4 , 5 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 433 > X:[4,5] Y:[3,4]
Found Entropy: 0
<Window: 434 > X:[4,5] Y:[4,5]
Found Entropy: 0
<Window: 435 > X:[5,6] Y:[-9,-8]
Found Entropy: 0
<Window: 436 > X:[ 5 , 6 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 437 > X:[5,6] Y:[-7,-6]
Found Entropy: 0
<Window: 438 > X:[5,6] Y:[-6,-5]
Found Entropy: 0
<Window: 439 > X:[5,6] Y:[-5,-4]
Found Entropy: 0
<Window: 440 > X:[5,6] Y:[-4,-3]
Found Entropy: 0
<Window: 441 > X:[5,6] Y:[-3,-2]
Found Entropy: 0
<Window: 442 > X:[5, 6] Y:[-2, -1]
Found Entropy: 0
```

```
<Window: 443 > X:[5,6] Y:[-1,0]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.6365141682948128
<Window: 444 > X:[5,6] Y:[0,1]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
<Window: 445 > X:[ 5 , 6 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 446 > X:[ 5 , 6 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 447 > X:[5,6] Y:[3,4]
Found Entropy: 0
<Window: 448 > X:[5,6] Y:[4,5]
Found Entropy: 0
<Window: 449 > X:[ 6 , 7 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 450 > X:[6,7] Y:[-8,-7]
Found Entropy: 0
<Window: 451 > X:[ 6 , 7 ] Y:[ -7 , -6 ]
Found Entropy: 0
\{\text{Window: } 452 > X: [6, 7] Y: [-6, -5]
Found Entropy: 0
<Window: 453 > X:[6,7] Y:[-5,-4]
Found Entropy: 0
<Window: 454 > X:[6,7] Y:[-4,-3]
Found Entropy: 0
<Window: 455 > X:[6,7] Y:[-3,-2]
Found Entropy: 0
<Window: 456 > X:[6,7] Y:[-2,-1]
Found Entropy: 0
<Window: 457 > X:[6,7] Y:[-1,0]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 1.0986122886681096
<Window: 458 > X:[ 6 , 7 ] Y:[ 0 , 1 ]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 459 > X:[6, 7] Y:[1, 2]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 460 > X:[ 6 , 7 ] Y:[ 2 , 3 ]
Found Entropy: 0
```

```
<Window: 461 > X:[ 6 , 7 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 462 > X:[ 6 , 7 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 463 > X:[7,8] Y:[-9,-8]
Found Entropy: 0
\{\text{Window: } 464 > X:[7,8] Y:[-8,-7]
Found Entropy: 0
<Window: 465 > X:[7,8] Y:[-7,-6]
Found Entropy: 0
\{\text{Window}: 466 > X: [7, 8] Y: [-6, -5]
Found Entropy: 0
<Window: 467 > X:[ 7 , 8 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 468 > X:[ 7 , 8 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 469 > X:[ 7 , 8 ] Y:[ -3 , -2 ]
Found Entropy: 0
\{\text{Window: } 470 > \text{X:} [7, 8] \text{ Y:} [-2, -1]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 471 > X:[7,8] Y:[-1,0]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 472 > X:[ 7 , 8 ] Y:[ 0 , 1 ]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.6931471805599453
<Window: 473 > X:[ 7 , 8 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 474 > X:[7,8] Y:[2,3]
Found Entropy: 0
<Window: 475 > X:[ 7 , 8 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 476 > X:[ 7 , 8 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 477 > X:[8,9] Y:[-9,-8]
Found Entropy: 0
<Window: 478 > X:[8, 9] Y:[-8, -7]
Found Entropy: 0
<Window: 479 > X:[8,9] Y:[-7,-6]
Found Entropy: 0
<Window: 480 > X:[8,9] Y:[-6,-5]
Found Entropy: 0
<Window: 481 > X:[8,9] Y:[-5,-4]
```

```
Found Entropy: 0
<Window: 482 > X:[8,9] Y:[-4,-3]
Found Entropy: 0
<Window: 483 > X:[8, 9] Y:[-3, -2]
Found Entropy: 0
<Window: 484 > X:[8, 9] Y:[-2, -1]
Found Entropy: 0
<Window: 485 > X:[8,9] Y:[-1,0]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.6365141682948128
<Window: 486 > X:[ 8 , 9 ] Y:[ 0 , 1 ]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 487 > X:[8, 9] Y:[1, 2]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 488 > X:[ 8 , 9 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 489 > X:[ 8 , 9 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 490 > X:[8, 9] Y:[4, 5]
Found Entropy: 0
\langle \text{Window}: 491 \rangle X: [9, 10] Y: [-9, -8]
Found Entropy: 0
<Window: 492 > X:[9, 10] Y:[-8, -7]
Found Entropy: 0
<Window: 493 > X:[ 9 , 10 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 494 > X:[ 9 , 10 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 495 > X:[9, 10] Y:[-5, -4]
Found Entropy: 0
<Window: 496 > X:[ 9 , 10 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 497 > X:[ 9 , 10 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 498 > X:[ 9 , 10 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 499 > X:[ 9 , 10 ] Y:[ -1 , 0 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 500 > X:[ 9 , 10 ] Y:[ 0 , 1 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 501 > X:[ 9 , 10 ] Y:[ 1 , 2 ]
```

```
Found Entropy: 0
<Window: 502 > X:[9, 10] Y:[2, 3]
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.6931471805599453
<Window: 503 > X:[ 9 , 10 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 504 > X:[ 9 , 10 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 505 > X:[ 10 , 11 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 506 > X:[ 10 , 11 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 507 > X:[ 10 , 11 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 508 > X:[ 10 , 11 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 509 > X:[ 10 , 11 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 510 \rangle X: [10, 11] Y: [-4, -3]
Found Entropy: 0
<Window: 511 > X:[ 10 , 11 ] Y:[ -3 , -2 ]
Found Entropy: 0
\{Window: 512 > X:[10, 11] Y:[-2, -1]
Found Entropy: 0
<Window: 513 > X:[ 10 , 11 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 514 > X:[ 10 , 11 ] Y:[ 0 , 1 ]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 1.0397207708399179
<Window: 515 > X:[ 10 , 11 ] Y:[ 1 , 2 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 516 > X:[ 10 , 11 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 517 > X:[ 10 , 11 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 518 > X:[ 10 , 11 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 519 > X:[ 11 , 12 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 520 > X:[ 11 , 12 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 521 > X:[ 11 , 12 ] Y:[ -7 , -6 ]
Found Entropy: 0
```

```
<Window: 522 > X:[ 11 , 12 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 523 > X:[ 11 , 12 ] Y:[ -5 , -4 ]
Found Entropy: 0
\{Window: 524 > X:[11, 12] Y:[-4, -3]
Found Entropy: 0
<Window: 525 > X:[ 11 , 12 ] Y:[ -3 , -2 ]
Found Entropy: 0
\{Window: 526 > X:[11, 12] Y:[-2, -1]
Found Entropy: 0
<Window: 527 > X:[ 11 , 12 ] Y:[ -1 , 0 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 528 > X:[ 11 , 12 ] Y:[ 0 , 1 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 529 > X:[ 11 , 12 ] Y:[ 1 , 2 ]
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.6931471805599453
<Window: 530 > X:[ 11 , 12 ] Y:[ 2 , 3 ]
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 531 > X:[ 11 , 12 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 532 > X:[ 11 , 12 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: 533} \rangle X: [12, 13] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window: } 534 \rangle \text{ X:[ } 12 \text{ , } 13 \text{ ] } \text{ Y:[ } -8 \text{ , } -7 \text{ ]}
Found Entropy: 0
<Window: 535 > X:[ 12 , 13 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 536 > X:[ 12 , 13 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 537 > X:[ 12 , 13 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 538 > X:[ 12 , 13 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: 539} \rangle X: [12, 13] Y: [-3, -2]
Found Entropy: 0
<Window: 540 > X:[ 12 , 13 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 541 > X:[12, 13] Y:[-1, 0]
Found a sample of class: 2
```

```
Found Entropy: 0.0
<Window: 542 > X:[ 12 , 13 ] Y:[ 0 , 1 ]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 1.0986122886681096
<Window: 543 > X:[ 12 , 13 ] Y:[ 1 , 2 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 544 > X:[ 12 , 13 ] Y:[ 2 , 3 ]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 545 > X:[ 12 , 13 ] Y:[ 3 , 4 ]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 546 > X:[ 12 , 13 ] Y:[ 4 , 5 ]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 547 > X:[ 13 , 14 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window: 548} \rangle \text{ X:[ 13 , 14 ] Y:[ -8 , -7 ]}
Found Entropy: 0
\langle \text{Window: 549} \rangle X: [13, 14] Y: [-7, -6]
Found Entropy: 0
<Window: 550 > X:[ 13 , 14 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 551 \rangle \text{ X:[ } 13 \text{ , } 14 \text{ ] } \text{ Y:[ } -5 \text{ , } -4 \text{ ]}
Found Entropy: 0
<Window: 552 > X:[ 13 , 14 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 553 \rangle X: [13, 14] Y: [-3, -2]
Found Entropy: 0
\{Window: 554 > X:[13,14]Y:[-2,-1]
Found Entropy: 0
<Window: 555 > X:[ 13 , 14 ] Y:[ -1 , 0 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 556 > X:[ 13 , 14 ] Y:[ 0 , 1 ]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
<Window: 557 > X:[ 13 , 14 ] Y:[ 1 , 2 ]
```

```
Found Entropy: 0
<Window: 558 > X:[ 13 , 14 ] Y:[ 2 , 3 ]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.6365141682948128
<Window: 559 > X:[ 13 , 14 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 560 > X:[ 13 , 14 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 561 > X:[ 14 , 15 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 562 \rangle X: [14, 15] Y: [-8, -7]
Found Entropy: 0
<Window: 563 > X:[ 14 , 15 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 564 > X:[ 14 , 15 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 565 > X:[14, 15] Y:[-5, -4]
Found Entropy: 0
<Window: 566 > X:[ 14 , 15 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 567 \rangle X: [14, 15] Y: [-3, -2]
Found Entropy: 0
<Window: 568 > X:[ 14 , 15 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 569 > X:[ 14 , 15 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 570 > X:[ 14 , 15 ] Y:[ 0 , 1 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 571 > X:[ 14 , 15 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 572 > X:[ 14 , 15 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 573 > X:[ 14 , 15 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 574 > X:[ 14 , 15 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 575 > X:[ 15 , 16 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 576 > X:[ 15 , 16 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 577 > X:[ 15 , 16 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 578 > X:[ 15 , 16 ] Y:[ -6 , -5 ]
Found Entropy: 0
```

```
\langle \text{Window: 579} \rangle X: [15, 16] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window: 580} \rangle \text{ X:} [ 15 , 16 ] \text{ Y:} [ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: 581} \rangle \text{ X:[ 15 , 16 ] Y:[ -3 , -2 ]}
Found Entropy: 0
<Window: 582 > X:[ 15 , 16 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 583 > X:[ 15 , 16 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 584 > X:[ 15 , 16 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 585 > X:[ 15 , 16 ] Y:[ 1 , 2 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 586 > X:[ 15 , 16 ] Y:[ 2 , 3 ]
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 587 > X:[ 15 , 16 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 588 > X:[ 15 , 16 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 589 > X:[ 16 , 17 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 590 > X:[ 16 , 17 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 591 > X:[ 16 , 17 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 592 > X:[ 16 , 17 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 593 > X:[ 16 , 17 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window: } 594 \rangle \text{ X:} [ 16 , 17 ] \text{ Y:} [ -4 , -3 ]
Found Entropy: 0
<Window: 595 > X:[ 16 , 17 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 596 > X:[ 16 , 17 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 597 > X:[ 16 , 17 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 598 > X:[ 16 , 17 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 599 > X:[ 16 , 17 ] Y:[ 1 , 2 ]
Found a sample of class: 1
Found a sample of class: 2
```

```
Found Entropy: 0.6931471805599453
<Window: 600 > X:[ 16 , 17 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 601 > X:[ 16 , 17 ] Y:[ 3 , 4 ]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 0.6365141682948128
<Window: 602 > X:[ 16 , 17 ] Y:[ 4 , 5 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 603 > X:[ 17 , 18 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 604 > X:[ 17 , 18 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 605 > X:[ 17 , 18 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 606 > X:[ 17 , 18 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 607 > X:[ 17 , 18 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window: } 608 \rangle \ \text{X:} [ 17 , 18 ] \ \text{Y:} [ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 609 \rangle \ \text{X:} [ 17 , 18 ] \ \text{Y:} [ -3 , -2 ]
Found Entropy: 0
\langle \text{Window: 610} \rangle X: [17, 18] Y: [-2, -1]
Found Entropy: 0
<Window: 611 > X:[ 17 , 18 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 612 > X:[ 17 , 18 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 613 > X:[ 17 , 18 ] Y:[ 1 , 2 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 614 > X:[ 17 , 18 ] Y:[ 2 , 3 ]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 615 > X:[ 17 , 18 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 616 > X:[ 17 , 18 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 617 \rangle \text{ X:} [ 18 , 19 ] \text{ Y:} [ -9 , -8 ]
```

```
Found Entropy: 0
<Window: 618 > X:[ 18 , 19 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 619 > X:[ 18 , 19 ] Y:[ -7 , -6 ]
Found Entropy: 0
\{Window: 620 > X:[ 18 , 19 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 621 \rangle \text{ X:} [ 18 , 19 ] \text{ Y:} [ -5 , -4 ]
Found Entropy: 0
<Window: 622 > X:[ 18 , 19 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 623 \rangle X: [ 18 , 19 ] Y: [ -3 , -2 ]
Found Entropy: 0
<Window: 624 > X:[ 18 , 19 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 625 > X:[ 18 , 19 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 626 > X:[ 18 , 19 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 627 > X:[ 18 , 19 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 628 > X:[ 18 , 19 ] Y:[ 2 , 3 ]
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 629 > X:[ 18 , 19 ] Y:[ 3 , 4 ]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 1.0986122886681096
<Window: 630 > X:[ 18 , 19 ] Y:[ 4 , 5 ]
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 0.6931471805599453
<Window: 631 > X:[ 19 , 20 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 632 > X:[ 19 , 20 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 633 > X:[ 19 , 20 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 634 > X:[ 19 , 20 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 635 > X:[ 19 , 20 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 636 > X:[ 19 , 20 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 637 > X:[ 19 , 20 ] Y:[ -3 , -2 ]
Found Entropy: 0
```

```
\langle \text{Window: 638} \rangle \text{ X:} [ 19 , 20 ] \text{ Y:} [ -2 , -1 ]
Found Entropy: 0
<Window: 639 > X:[ 19 , 20 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 640 > X:[ 19 , 20 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 641 > X:[ 19 , 20 ] Y:[ 1 , 2 ]
Found Entropy: 0
\{\text{Window: } 642 > X: [19, 20] Y: [2, 3]
Found Entropy: 0
<Window: 643 > X:[ 19 , 20 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 644 > X:[ 19 , 20 ] Y:[ 4 , 5 ]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 1.0549201679861442
\{\text{Window: } 645 > X: [20, 21] Y: [-9, -8]
Found Entropy: 0
<Window: 646 > X:[ 20 , 21 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window: } 647 \rangle \text{ X:[ } 20 \text{ , } 21 \text{ ] } \text{ Y:[ } -7 \text{ , } -6 \text{ ]}
Found Entropy: 0
<Window: 648 > X:[ 20 , 21 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 649 > X:[ 20 , 21 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 650 > X:[ 20 , 21 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 651 \rangle \ \text{X:} [ 20 , 21 ] \ \text{Y:} [ -3 , -2 ]
Found Entropy: 0
\langle \text{Window}: 652 \rangle X: [20, 21] Y: [-2, -1]
Found Entropy: 0
<Window: 653 > X:[ 20 , 21 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 654 > X:[ 20 , 21 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 655 > X:[ 20 , 21 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 656 > X:[ 20 , 21 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 657 > X:[ 20 , 21 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 0.6931471805599453
```

```
<Window: 658 > X:[ 20 , 21 ] Y:[ 4 , 5 ]
Found a sample of class: 1
Found Entropy: 0.0
Total Count: 658
Expected Count: 658
OKAY: True
----Done--- 25.858124148322695
Done!
-26 21 -9 5
You Can use this matrix now.
X_{min} = -26
X_max = 21
Y_min = -9
Y_{max} = 5
And the Matrix Shape: 47 * 14
\{\text{Window: 1 > X:[-26,-25] Y:[-9,-8]}
Found Entropy: 0
\{\text{Window: 2 > X:[-26,-25] Y:[-8,-7]}
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.6931471805599453
\langle \text{Window}: 3 \rangle X: [-26, -25] Y: [-7, -6]
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.6931471805599453
\{\text{Window: 4} > \text{X:[-26,-25]} \text{Y:[-6,-5]}
Found Entropy: 0
\langle \text{Window}: 5 \rangle X: [-26, -25] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window: 6} \rangle \text{ X:[-26, -25] Y:[-4, -3]}
Found Entropy: 0
\forall x \in Y : [-26, -25] Y : [-3, -2]
Found Entropy: 0
\langle \text{Window: 8 > X:[-26,-25] Y:[-2,-1]}
Found Entropy: 0
\langle \text{Window: 9 > X:[-26,-25] Y:[-1,0]}
Found Entropy: 0
<Window: 10 > X:[ -26 , -25 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window: } 11 \rangle \ \text{X:[} -26 \ , -25 \ ] \ \text{Y:[} 1 \ , 2 \ ]
Found Entropy: 0
\langle \text{Window}: 12 \rangle X: [-26, -25] Y: [2, 3]
Found Entropy: 0
<Window: 13 > X:[ -26 , -25 ] Y:[ 3 , 4 ]
Found Entropy: 0
\{\text{Window: } 14 > X: [-26, -25] \ Y: [4, 5] \}
```

```
Found Entropy: 0
\forall 15 > X:[-25, -24] Y:[-9, -8]
Found Entropy: 0
<Window: 16 > X:[ -25 , -24 ] Y:[ -8 , -7 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
\langle \text{Window}: 17 > X: [-25, -24] Y: [-7, -6]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.6931471805599453
<Window: 18 > X:[ -25 , -24 ] Y:[ -6 , -5 ]
Found a sample of class: 0
Found Entropy: 0.0
\forall 19 > X:[-25, -24] Y:[-5, -4]
Found Entropy: 0
\forall x = 0 > x : [-25, -24] Y : [-4, -3]
Found Entropy: 0
\langle \text{Window}: 21 \rangle X: [-25, -24] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 22 \rangle X: [-25, -24] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 23 \rangle X: [-25, -24] Y: [-1, 0]
Found Entropy: 0
<Window: 24 > X:[ -25 , -24 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 25 \rangle X: [-25, -24] Y: [1, 2]
Found Entropy: 0
<Window: 26 > X:[ -25 , -24 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 27 > X:[ -25 , -24 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 28 > X:[ -25 , -24 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 29 > X:[ -24 , -23 ] Y:[ -9 , -8 ]
Found Entropy: 0
\{Window: 30 > X: [ -24 , -23 ] Y: [ -8 , -7 ]
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.6931471805599453
\langle \text{Window}: 31 \rangle X: [-24, -23] Y: [-7, -6]
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.5623351446188083
```

```
\langle \text{Window}: 32 \rangle X: [-24, -23] Y: [-6, -5]
Found a sample of class: 0
Found Entropy: 0.0
\forall Window: 33 > X:[ -24 , -23 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 34 > X:[ -24 , -23 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 35 \rangle X: [-24, -23] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 36 \rangle X: [-24, -23] Y: [-2, -1]
Found Entropy: 0
<Window: 37 > X:[-24, -23] Y:[-1, 0]
Found Entropy: 0
<Window: 38 > X:[ -24 , -23 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window: } 39 \rangle \text{ X:[} -24 , -23 ] \text{ Y:[} 1 , 2 ]
Found Entropy: 0
<Window: 40 > X:[ -24 , -23 ] Y:[ 2 , 3 ]
Found Entropy: 0
\langle \text{Window}: 41 \rangle X: [-24, -23] Y: [3, 4]
Found Entropy: 0
\langle \text{Window: } 42 \rangle \text{ X:[} -24 , -23 ] \text{ Y:[} 4 , 5 ]
Found Entropy: 0
<Window: 43 > X:[-23, -22] Y:[-9, -8]
Found Entropy: 0
\langle \text{Window}: 44 \rangle X: [-23, -22] Y: [-8, -7]
Found a sample of class: 2
Found Entropy: 0.0
\langle \text{Window}: 45 \rangle X: [-23, -22] Y: [-7, -6]
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 1.0397207708399179
\langle \text{Window}: 46 \rangle X: [-23, -22] Y: [-6, -5]
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6931471805599453
\langle \text{Window}: 47 \rangle X: [-23, -22] Y: [-5, -4]
Found Entropy: 0
\forall \text{Window: } 48 > X:[-23, -22] Y:[-4, -3]
Found Entropy: 0
\langle \text{Window}: 49 \rangle X: [-23, -22] Y: [-3, -2]
Found Entropy: 0
\forall X: [-23, -22] Y: [-2, -1]
Found Entropy: 0
\forall x \in X : [-23, -22] Y : [-1, 0]
Found Entropy: 0
```

```
\langle \text{Window: 52} \rangle X: [-23, -22] Y: [0, 1]
Found Entropy: 0
\langle \text{Window: 53} \rangle X: [-23, -22] Y: [1, 2]
Found Entropy: 0
\{\text{Window: } 54 > X: [-23, -22] Y: [2, 3]
Found Entropy: 0
<Window: 55 > X:[ -23 , -22 ] Y:[ 3 , 4 ]
Found Entropy: 0
\{\text{Window: } 56 > \text{X:} [-23, -22] \text{ Y:} [4, 5]
Found Entropy: 0
\{\text{Window: } 57 > \text{X:} [-22, -21] \text{ Y:} [-9, -8]
Found Entropy: 0
\{\text{Window: 58} > X: [-22, -21] Y: [-8, -7]\}
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.6931471805599453
\langle \text{Window}: 59 \rangle X: [-22, -21] Y: [-7, -6]
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 0.6931471805599453
\langle \text{Window: } 60 \rangle \text{ X: } [-22, -21] \text{ Y: } [-6, -5]
Found Entropy: 0
\langle \text{Window: } 61 \rangle \ \text{X:} [ -22 , -21 ] \ \text{Y:} [ -5 , -4 ]
Found Entropy: 0
\langle \text{Window: } 62 \rangle \text{ X: [ } -22 \text{ , } -21 \text{ ] } \text{ Y: [ } -4 \text{ , } -3 \text{ ]}
Found Entropy: 0
\langle \text{Window: } 63 \rangle \text{ X: [ } -22 \text{ , } -21 \text{ ] } \text{ Y: [ } -3 \text{ , } -2 \text{ ]}
Found Entropy: 0
\langle \text{Window}: 64 \rangle X: [-22, -21] Y: [-2, -1]
Found Entropy: 0
<Window: 65 > X:[ -22 , -21 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 66 > X:[ -22 , -21 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 67 > X:[ -22 , -21 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 68 > X:[ -22 , -21 ] Y:[ 2 , 3 ]
Found Entropy: 0
\{\text{Window: }69 > X:[-22, -21] Y:[3, 4]
Found Entropy: 0
<Window: 70 > X:[ -22 , -21 ] Y:[ 4 , 5 ]
Found Entropy: 0
\{\text{Window: 71} > \text{X:} [-21, -20] \text{ Y:} [-9, -8] \}
Found a sample of class: 2
Found Entropy: 0.0
\{\text{Window: 72} > \text{X:} [-21, -20] \text{ Y:} [-8, -7] \}
Found a sample of class: 1
Found a sample of class: 2
```

```
Found a sample of class: 0
Found Entropy: 1.0986122886681096
\langle \text{Window}: 73 \rangle X: [-21, -20] Y: [-7, -6]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.6365141682948128
\{\text{Window}: 74 > X: [-21, -20] Y: [-6, -5]\}
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
\langle \text{Window}: 75 \rangle X: [-21, -20] Y: [-5, -4]
Found Entropy: 0
\{Window: 76 > X:[ -21 , -20 ] Y:[ -4 , -3 ]
Found Entropy: 0
\{Window: 77 > X:[ -21 , -20 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window}: 78 \rangle X: [-21, -20] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window: 79} \rangle \ \text{X:[-21,-20]} \ \text{Y:[-1,0]}
Found Entropy: 0
<Window: 80 > X:[ -21 , -20 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 81 > X:[ -21 , -20 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 82 > X:[ -21 , -20 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 83 > X:[ -21 , -20 ] Y:[ 3 , 4 ]
Found Entropy: 0
\{\text{Window: 84} > \text{X:[-21,-20]} \text{Y:[4,5]}
Found Entropy: 0
\langle \text{Window}: 85 \rangle X: [-20, -19] Y: [-9, -8]
Found Entropy: 0
\{Window: 86 \} X: [ -20 , -19 ] Y: [ -8 , -7 ]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 87 \rangle X: [-20, -19] Y: [-7, -6]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 1.0397207708399179
<Window: 88 > X:[ -20 , -19 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: 89} \rangle \text{ X: [ -20 , -19 ] Y: [ -5 , -4 ]}
```

```
Found Entropy: 0
\forall 0 > X: [-20, -19] Y: [-4, -3]
Found Entropy: 0
\{Window: 91 > X:[ -20 , -19 ] Y:[ -3 , -2 ]
Found Entropy: 0
\forall \text{Window: } 92 > X:[-20, -19] Y:[-2, -1]
Found Entropy: 0
\langle \text{Window: } 93 \rangle \ \text{X:[} -20 \ , -19 \ ] \ \text{Y:[} -1 \ , 0 \ ]
Found Entropy: 0
\langle \text{Window}: 94 \rangle X: [-20, -19] Y: [0, 1]
Found Entropy: 0
\langle \text{Window: 95} \rangle X: [-20, -19] Y: [1, 2]
Found Entropy: 0
<Window: 96 > X:[ -20 , -19 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 97 > X:[ -20 , -19 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 98 > X:[ -20 , -19 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 99 \rangle \ \text{X:} [ -19 , -18 ] \ \text{Y:} [ -9 , -8 ]
Found Entropy: 0
<Window: 100 > X:[ -19 , -18 ] Y:[ -8 , -7 ]
Found a sample of class: 2
Found Entropy: 0.0
\langle \text{Window}: 101 > X:[-19, -18] Y:[-7, -6]
Found Entropy: 0
\langle \text{Window: } 102 \rangle \text{ X:[} -19 , -18 ] \text{ Y:[} -6 , -5 ]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 103 \rangle X: [-19, -18] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 104 \rangle X: [-19, -18] Y: [-4, -3]
Found Entropy: 0
\{Window: 105 > X:[-19, -18] Y:[-3, -2]
Found Entropy: 0
\langle \text{Window: } 106 \rangle \ \text{X:[} -19 \ , -18 \ ] \ \text{Y:[} -2 \ , -1 \ ]
Found Entropy: 0
\langle \text{Window: } 107 \rangle \text{ X:[} -19 , -18 ] \text{ Y:[} -1 , 0 ]
Found Entropy: 0
<Window: 108 > X:[ -19 , -18 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 109 > X:[ -19 , -18 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window: } 110 \rangle \ \text{X:[} -19 \ , -18 \ ] \ \text{Y:[} 2 \ , 3 \ ]
Found Entropy: 0
\langle \text{Window: } 111 \rangle \ \text{X:[} -19 \ , -18 \ ] \ \text{Y:[} 3 \ , 4 \ ]
Found Entropy: 0
\langle \text{Window: } 112 \rangle \ \text{X:[} -19 \ , -18 \ ] \ \text{Y:[} 4 \ , 5 \ ]
```

```
Found Entropy: 0
\langle \text{Window}: 113 \rangle X: [-18, -17] Y: [-9, -8]
Found Entropy: 0
<Window: 114 > X:[ -18 , -17 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window}: 115 \rangle X: [-18, -17] Y: [-7, -6]
Found Entropy: 0
<Window: 116 > X:[ -18 , -17 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 117 > X:[-18, -17] Y:[-5, -4]
Found Entropy: 0
<Window: 118 > X:[ -18 , -17 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 119 > X:[ -18 , -17 ] Y:[ -3 , -2 ]
Found Entropy: 0
\forall \text{Window: } 120 > X:[-18, -17] Y:[-2, -1]
Found Entropy: 0
<Window: 121 > X:[ -18 , -17 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 122 > X:[ -18 , -17 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 123 > X:[ -18 , -17 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 124 > X:[ -18 , -17 ] Y:[ 2 , 3 ]
Found Entropy: 0
\langle \text{Window}: 125 \rangle X: [-18, -17] Y: [3, 4]
Found Entropy: 0
<Window: 126 > X:[ -18 , -17 ] Y:[ 4 , 5 ]
Found Entropy: 0
\forall x = 127 > x = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 127 = 
Found Entropy: 0
\forall Window: 128 > X:[ -17 , -16 ] Y:[ -8 , -7 ]
Found Entropy: 0
\{Window: 129 > X:[-17, -16] Y:[-7, -6]
Found Entropy: 0
\langle \text{Window: } 130 \rangle \text{ X:[} -17 , -16 ] \text{ Y:[} -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 131 \rangle \ \text{X:[} -17 \ , -16 \ ] \ \text{Y:[} -5 \ , -4 \ ]
Found Entropy: 0
\langle \text{Window}: 132 \rangle X: [-17, -16] Y: [-4, -3]
Found Entropy: 0
<Window: 133 > X:[ -17 , -16 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window: } 134 \rangle \text{ X: [} -17 \text{ , } -16 \text{ ] } \text{ Y: [} -2 \text{ , } -1 \text{ ]}
Found Entropy: 0
<Window: 135 > X:[ -17 , -16 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 136 > X:[ -17 , -16 ] Y:[ 0 , 1 ]
```

```
Found Entropy: 0
<Window: 137 > X:[ -17 , -16 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 138 > X:[ -17 , -16 ] Y:[ 2 , 3 ]
Found Entropy: 0
\langle \text{Window: } 139 \rangle \ \text{X:[} -17 \ , -16 \ ] \ \text{Y:[} 3 \ , 4 \ ]
Found Entropy: 0
\langle \text{Window: } 140 \rangle \ \text{X:[} -17 \ , -16 \ ] \ \text{Y:[} 4 \ , 5 \ ]
Found Entropy: 0
\langle \text{Window}: 141 > X: [-16, -15] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 142 \rangle X: [-16, -15] Y: [-8, -7]
Found Entropy: 0
<Window: 143 > X:[ -16 , -15 ] Y:[ -7 , -6 ]
Found Entropy: 0
\langle \text{Window}: 144 \rangle X: [-16, -15] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 145 \rangle X: [-16, -15] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 146 \rangle X: [-16, -15] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window: } 147 \rangle \ \text{X:[} -16 \ , -15 \ ] \ \text{Y:[} -3 \ , -2 \ ]
Found Entropy: 0
<Window: 148 > X:[ -16 , -15 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 149 > X:[ -16 , -15 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 150 > X:[ -16 , -15 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window: } 151 \rangle \ \text{X:[} -16 \ , -15 \ ] \ \text{Y:[} 1 \ , 2 \ ]
Found Entropy: 0
\langle \text{Window}: 152 \rangle X: [-16, -15] Y: [2, 3]
Found Entropy: 0
<Window: 153 > X:[ -16 , -15 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window: } 154 \rangle \ \text{X:[} -16 \ , -15 \ ] \ \text{Y:[} 4 \ , 5 \ ]
Found Entropy: 0
<Window: 155 > X:[ -15 , -14 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 156 > X:[ -15 , -14 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 157 > X:[ -15 , -14 ] Y:[ -7 , -6 ]
Found Entropy: 0
\langle \text{Window}: 158 \rangle X: [-15, -14] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 159 \rangle X: [-15, -14] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 160 \rangle X: [-15, -14] Y: [-4, -3]
```

```
Found Entropy: 0
<Window: 161 > X:[ -15 , -14 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 162 > X:[ -15 , -14 ] Y:[ -2 , -1 ]
Found Entropy: 0
\langle \text{Window: } 163 \rangle \ \text{X:[} -15 \ , -14 \ ] \ \text{Y:[} -1 \ , 0 \ ]
Found Entropy: 0
<Window: 164 > X:[ -15 , -14 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 165 > X:[ -15 , -14 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 166 > X:[ -15 , -14 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 167 > X:[ -15 , -14 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 168 > X:[ -15 , -14 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 169 \rangle \ \text{X:[} -14 , -13 \ ] \ \text{Y:[} -9 , -8 \ ]
Found Entropy: 0
\langle \text{Window}: 170 \rangle X: [-14, -13] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 171 > X:[-14, -13] Y:[-7, -6]
Found Entropy: 0
<Window: 172 > X:[ -14 , -13 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 173 \rangle X: [-14, -13] Y: [-5, -4]
Found Entropy: 0
\forall \text{Window: } 174 > X:[-14, -13] Y:[-4, -3]
Found Entropy: 0
\langle \text{Window}: 175 \rangle X: [-14, -13] Y: [-3, -2]
Found Entropy: 0
\forall \text{Window: } 176 > X:[-14, -13] Y:[-2, -1]
Found Entropy: 0
<Window: 177 > X:[ -14 , -13 ] Y:[ -1 , 0 ]
Found Entropy: 0
\langle \text{Window: } 178 \rangle \ \text{X:[} -14 \ , -13 \ ] \ \text{Y:[} 0 \ , 1 \ ]
Found Entropy: 0
\langle \text{Window: } 179 \rangle \ \text{X:[} -14 \ , -13 \ ] \ \text{Y:[} 1 \ , 2 \ ]
Found Entropy: 0
\langle \text{Window: } 180 \rangle \ \text{X:[} -14 \ , -13 \ ] \ \text{Y:[} 2 \ , 3 \ ]
Found Entropy: 0
<Window: 181 > X:[ -14 , -13 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 182 > X:[ -14 , -13 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 183 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} -9 \ , -8 \ ]
Found Entropy: 0
\langle \text{Window: } 184 \rangle \ \text{X:[} -13 , -12 \ ] \ \text{Y:[} -8 , -7 \ ]
```

```
Found Entropy: 0
\langle \text{Window: } 185 \rangle \text{ X:[} -13 , -12 ] \text{ Y:[} -7 , -6 ]
Found Entropy: 0
<Window: 186 > X:[ -13 , -12 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 187 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} -5 \ , -4 \ ]
Found Entropy: 0
\langle \text{Window: } 188 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} -4 \ , -3 \ ]
Found Entropy: 0
\langle \text{Window: } 189 \rangle \text{ X: } [-13, -12] \text{ Y: } [-3, -2]
Found Entropy: 0
\forall \text{Window: } 190 > X:[-13, -12] Y:[-2, -1]
Found Entropy: 0
<Window: 191 > X:[ -13 , -12 ] Y:[ -1 , 0 ]
Found Entropy: 0
\langle \text{Window: } 192 \rangle X:[-13, -12] Y:[0, 1]
Found Entropy: 0
\langle \text{Window: 193} \rangle X: [-13, -12] Y: [1, 2]
Found Entropy: 0
\langle \text{Window}: 194 \rangle X: [-13, -12] Y: [2, 3]
Found Entropy: 0
\langle \text{Window: } 195 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} 3 \ , 4 \ ]
Found Entropy: 0
<Window: 196 > X:[ -13 , -12 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 197 \rangle X: [-12, -11] Y: [-9, -8]
Found Entropy: 0
\forall \text{Window: } 198 > X:[-12, -11] Y:[-8, -7]
Found Entropy: 0
\forall 199 > X:[-12,-11] Y:[-7,-6]
Found Entropy: 0
\langle \text{Window: } 200 \rangle \text{ X:[} -12 , -11 ] \text{ Y:[} -6 , -5 ]
Found Entropy: 0
\{Window: 201 > X:[-12, -11] Y:[-5, -4]
Found Entropy: 0
\langle \text{Window}: 202 \rangle X: [-12, -11] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 203 \rangle X: [-12, -11] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 204 \rangle X: [-12, -11] Y: [-2, -1]
Found Entropy: 0
<Window: 205 > X:[ -12 , -11 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 206 > X:[ -12 , -11 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window: } 207 \rangle X:[-12, -11] Y:[1, 2]
Found Entropy: 0
\langle \text{Window: } 208 \rangle \ \text{X:[} -12 \ , -11 \ ] \ \text{Y:[} 2 \ , 3 \ ]
```

```
Found Entropy: 0
\langle \text{Window: } 209 \rangle \ X:[ -12 , -11 ] \ Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 210 > X:[ -12 , -11 ] Y:[ 4 , 5 ]
Found Entropy: 0
\forall X:[-11,-10] Y:[-9,-8]
Found Entropy: 0
<Window: 212 > X:[ -11 , -10 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window}: 213 \rangle X: [-11, -10] Y: [-7, -6]
Found Entropy: 0
\forall x = 10  \exists x = 10 
Found Entropy: 0
\langle \text{Window}: 215 \rangle X: [-11, -10] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 216 \rangle X: [-11, -10] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 217 \rangle X: [-11, -10] Y: [-3, -2]
Found Entropy: 0
\{Window: 218 > X:[-11, -10] Y:[-2, -1]
Found Entropy: 0
\langle \text{Window: } 219 \rangle X:[-11, -10] Y:[-1, 0]
Found Entropy: 0
<Window: 220 > X:[ -11 , -10 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 221 > X:[ -11 , -10 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window: } 222 \rangle X:[-11, -10] Y:[2, 3]
Found Entropy: 0
<Window: 223 > X:[ -11 , -10 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window}: 224 \rangle X: [-11, -10] Y: [4, 5]
Found Entropy: 0
\langle \text{Window}: 225 \rangle X: [-10, -9] Y: [-9, -8]
Found Entropy: 0
<Window: 226 > X:[ -10 , -9 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window: } 227 \rangle \text{ X:[} -10 , -9 ] \text{ Y:[} -7 , -6 ]
Found Entropy: 0
<Window: 228 > X:[ -10 , -9 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 229 > X:[ -10 , -9 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window: } 230 \rangle \text{ X:[} -10 , -9 ] \text{ Y:[} -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 231 \rangle \text{ X:[} -10 , -9 ] \text{ Y:[} -3 , -2 ]
Found Entropy: 0
\langle \text{Window: } 232 \rangle \text{ X:[} -10 , -9 ] \text{ Y:[} -2 , -1 ]
```

```
Found Entropy: 0
<Window: 233 > X:[ -10 , -9 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 234 > X:[ -10 , -9 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 235 > X:[ -10 , -9 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 236 > X:[ -10 , -9 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 237 > X:[ -10 , -9 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 238 > X:[ -10 , -9 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 239 \rangle X:[-9, -8] Y:[-9, -8]
Found Entropy: 0
\langle \text{Window: } 240 \rangle \text{ X:[} -9 , -8 ] \text{ Y:[} -8 , -7 ]
Found Entropy: 0
\langle \text{Window: } 241 \rangle \ \text{X:[} -9 \ , -8 \ ] \ \text{Y:[} -7 \ , -6 \ ]
Found Entropy: 0
<Window: 242 > X:[ -9 , -8 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 243 \rangle \ \text{X:[} -9 \ , -8 \ ] \ \text{Y:[} -5 \ , -4 \ ]
Found Entropy: 0
\langle \text{Window}: 244 \rangle X: [-9, -8] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 245 \rangle X: [-9, -8] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 246 \rangle X: [-9, -8] Y: [-2, -1]
Found Entropy: 0
<Window: 247 > X:[-9, -8] Y:[-1, 0]
Found Entropy: 0
<Window: 248 > X:[ -9 , -8 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 249 > X:[ -9 , -8 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 250 > X:[ -9 , -8 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 251 > X:[ -9 , -8 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 252 > X:[ -9 , -8 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 253 > X:[ -8 , -7 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 254 > X:[ -8 , -7 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window}: 255 \rangle X: [-8, -7] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 256 \rangle X: [-8, -7] Y: [-6, -5]
```

```
Found Entropy: 0
<Window: 257 > X:[ -8 , -7 ] Y:[ -5 , -4 ]
Found Entropy: 0
\forall Window: 258 > X:[ -8 , -7 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 259 \rangle X: [-8, -7] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 260 \rangle X: [-8, -7] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 261 \rangle X: [-8, -7] Y: [-1, 0]
Found Entropy: 0
<Window: 262 > X:[ -8 , -7 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 263 > X:[ -8 , -7 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 264 > X:[ -8 , -7 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 265 > X:[ -8 , -7 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 266 > X:[ -8 , -7 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 267 \rangle \text{ X:[} -7 , -6 ] \text{ Y:[} -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 268 \rangle X: [-7, -6] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 269 \rangle X: [-7, -6] Y: [-7, -6]
Found Entropy: 0
\forall x = 100 \times 100 \times 100 \times 1000 \times 1000
Found Entropy: 0
\forall X:[-7,-6] Y:[-5,-4]
Found Entropy: 0
\langle \text{Window}: 272 \rangle X:[-7,-6] Y:[-4,-3]
Found Entropy: 0
\forall X:[-7,-6] Y:[-3,-2]
Found Entropy: 0
\forall Window: 274 > X:[ -7 , -6 ] Y:[ -2 , -1 ]
Found Entropy: 0
\langle \text{Window}: 275 \rangle X: [-7, -6] Y: [-1, 0]
Found Entropy: 0
<Window: 276 > X:[ -7 , -6 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 277 > X:[ -7 , -6 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 278 > X:[ -7 , -6 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 279 > X:[ -7 , -6 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 280 > X:[ -7 , -6 ] Y:[ 4 , 5 ]
```

```
Found Entropy: 0
<Window: 281 > X:[-6, -5] Y:[-9, -8]
Found Entropy: 0
\forall X: [-6, -5] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window: 283} \rangle X: [-6, -5] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window: } 284 \rangle \ \text{X:[} -6 \ , -5 \ ] \ \text{Y:[} -6 \ , -5 \ ]
Found Entropy: 0
\langle \text{Window}: 285 \rangle X: [-6, -5] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 286 \rangle X: [-6, -5] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window: } 287 \rangle \text{ X:[} -6 , -5 ] \text{ Y:[} -3 , -2 ]
Found Entropy: 0
\langle \text{Window: 288} \rangle X: [-6, -5] Y: [-2, -1]
Found Entropy: 0
<Window: 289 > X:[ -6 , -5 ] Y:[ -1 , 0 ]
Found Entropy: 0
\langle \text{Window}: 290 \rangle X: [-6, -5] Y: [0, 1]
Found Entropy: 0
<Window: 291 > X:[ -6 , -5 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window}: 292 \rangle X: [-6, -5] Y: [2, 3]
Found Entropy: 0
\langle \text{Window}: 293 \rangle X: [-6, -5] Y: [3, 4]
Found Entropy: 0
<Window: 294 > X:[ -6 , -5 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 295 > X:[ -5 , -4 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 296 \rangle X: [-5, -4] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 297 \rangle X: [-5, -4] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window: } 298 \rangle \ \text{X:[} -5 \ , -4 \ ] \ \text{Y:[} -6 \ , -5 \ ]
Found Entropy: 0
\langle \text{Window: } 299 \rangle \ X: [-5, -4] \ Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 300 \rangle X: [-5, -4] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 301 \rangle X: [-5, -4] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 302 \rangle X: [-5, -4] Y: [-2, -1]
Found Entropy: 0
<Window: 303 > X:[ -5 , -4 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 304 > X:[ -5 , -4 ] Y:[ 0 , 1 ]
```

```
Found Entropy: 0
<Window: 305 > X:[-5, -4] Y:[1, 2]
Found Entropy: 0
<Window: 306 > X:[-5, -4] Y:[2, 3]
Found Entropy: 0
<Window: 307 > X:[-5, -4] Y:[3, 4]
Found Entropy: 0
<Window: 308 > X:[ -5 , -4 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 309 \rangle X: [-4, -3] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 310 \rangle X: [-4, -3] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 311 \rangle X: [-4, -3] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 312 \rangle X: [-4, -3] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 313 \rangle X: [-4, -3] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 314 \rangle X: [-4, -3] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 315 \rangle X: [-4, -3] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 316 \rangle X: [-4, -3] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 317 \rangle X: [-4, -3] Y: [-1, 0]
Found Entropy: 0
<Window: 318 > X:[ -4 , -3 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 319 \rangle X: [-4, -3] Y: [1, 2]
Found Entropy: 0
<Window: 320 > X:[ -4 , -3 ] Y:[ 2 , 3 ]
Found Entropy: 0
\langle \text{Window}: 321 \rangle X: [-4, -3] Y: [3, 4]
Found Entropy: 0
\langle \text{Window}: 322 \rangle X: [-4, -3] Y: [4, 5]
Found Entropy: 0
\langle \text{Window}: 323 \rangle X: [-3, -2] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 324 \rangle X: [-3, -2] Y: [-8, -7]
Found Entropy: 0
<Window: 325 > X:[ -3 , -2 ] Y:[ -7 , -6 ]
Found Entropy: 0
\langle \text{Window}: 326 \rangle X: [-3, -2] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 327 \rangle X:[-3, -2] Y:[-5, -4]
Found Entropy: 0
\langle \text{Window}: 328 \rangle X: [-3, -2] Y: [-4, -3]
```

```
Found Entropy: 0
\langle \text{Window}: 329 \rangle X: [-3, -2] Y: [-3, -2]
Found Entropy: 0
<Window: 330 > X:[ -3 , -2 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 331 > X:[ -3 , -2 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 332 > X:[ -3 , -2 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 333 \rangle X: [-3, -2] Y: [1, 2]
Found Entropy: 0
<Window: 334 > X:[ -3 , -2 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 335 > X:[ -3 , -2 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 336 > X:[ -3 , -2 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 337 \rangle \text{ X:[} -2 , -1 ] \text{ Y:[} -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 338 \rangle X: [-2, -1] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window: } 339 \rangle \ \text{X:[} -2 \ , -1 \ ] \ \text{Y:[} -7 \ , -6 \ ]
Found Entropy: 0
\{Window: 340 > X: [ -2 , -1 ] Y: [ -6 , -5 ] <math>\}
Found Entropy: 0
\langle \text{Window}: 341 \rangle X: [-2, -1] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 342 \rangle X: [-2, -1] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 343 \rangle X: [-2, -1] Y: [-3, -2]
Found Entropy: 0
\{Window: 344 > X:[-2,-1] Y:[-2,-1]
Found Entropy: 0
<Window: 345 > X:[ -2 , -1 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 346 > X:[ -2 , -1 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 347 \rangle X: [-2, -1] Y: [1, 2]
Found Entropy: 0
\langle \text{Window}: 348 \rangle X: [-2, -1] Y: [2, 3]
Found Entropy: 0
<Window: 349 > X:[ -2 , -1 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 350 > X:[ -2 , -1 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 351 > X:[ -1 , 0 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 352 > X:[-1, 0] Y:[-8, -7]
```

```
Found Entropy: 0
<Window: 353 > X:[ -1 , 0 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 354 > X:[ -1 , 0 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 355 > X:[ -1 , 0 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 356 > X:[ -1 , 0 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 357 \rangle X: [-1, 0] Y: [-3, -2]
Found Entropy: 0
<Window: 358 > X:[-1, 0] Y:[-2, -1]
Found Entropy: 0
<Window: 359 > X:[ -1 , 0 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 360 > X:[ -1 , 0 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 361 > X:[ -1 , 0 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window}: 362 \rangle X:[-1, 0] Y:[2, 3]
Found Entropy: 0
<Window: 363 > X:[ -1 , 0 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 364 > X:[ -1 , 0 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 365 \rangle X: [0, 1] Y: [-9, -8]
Found Entropy: 0
<Window: 366 > X:[ 0 , 1 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 367 > X:[ 0 , 1 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 368 > X:[ 0 , 1 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 369 > X:[ 0 , 1 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 370 > X:[ 0 , 1 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 371 > X:[ 0 , 1 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window}: 372 \rangle X: [0, 1] Y: [-2, -1]
Found Entropy: 0
<Window: 373 > X:[0, 1] Y:[-1, 0]
Found Entropy: 0
<Window: 374 > X:[ 0 , 1 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 375 > X:[ 0 , 1 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 376 > X:[0,1] Y:[2,3]
```

```
Found Entropy: 0
<Window: 377 > X:[0, 1] Y:[3, 4]
Found Entropy: 0
<Window: 378 > X:[0,1] Y:[4,5]
Found Entropy: 0
<Window: 379 > X:[1, 2] Y:[-9, -8]
Found Entropy: 0
<Window: 380 > X:[1,2] Y:[-8,-7]
Found Entropy: 0
\langle Window: 381 \rangle X:[1,2] Y:[-7,-6]
Found Entropy: 0
\langle \text{Window}: 382 \rangle X: [1, 2] Y: [-6, -5]
Found Entropy: 0
<Window: 383 > X:[1,2] Y:[-5,-4]
Found Entropy: 0
<Window: 384 > X:[1,2] Y:[-4,-3]
Found Entropy: 0
\langle \text{Window}: 385 \rangle X: [1, 2] Y: [-3, -2]
Found Entropy: 0
\{\text{Window: } 386 > X:[1,2] Y:[-2,-1]
Found Entropy: 0
<Window: 387 > X:[ 1 , 2 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 388 > X:[ 1 , 2 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 389 > X:[ 1 , 2 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 390 > X:[1,2] Y:[2,3]
Found Entropy: 0
<Window: 391 > X:[ 1 , 2 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window}: 392 \rangle X: [1, 2] Y: [4, 5]
Found Entropy: 0
\langle \text{Window}: 393 \rangle X: [2, 3] Y: [-9, -8]
Found Entropy: 0
<Window: 394 > X:[ 2 , 3 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 395 > X:[ 2 , 3 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 396 > X:[ 2 , 3 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 397 > X:[ 2 , 3 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 398 \rangle X: [2, 3] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 399 \rangle X: [2, 3] Y: [-3, -2]
Found Entropy: 0
\{\text{Window: } 400 > X: [2, 3] Y: [-2, -1]
```

```
Found Entropy: 0
<Window: 401 > X:[2,3]Y:[-1,0]
Found Entropy: 0
<Window: 402 > X:[2,3] Y:[0,1]
Found Entropy: 0
<Window: 403 > X:[2,3] Y:[1,2]
Found Entropy: 0
<Window: 404 > X:[2,3] Y:[2,3]
Found Entropy: 0
<Window: 405 > X:[ 2 , 3 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 406 > X:[ 2 , 3 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 407 > X:[3,4] Y:[-9,-8]
Found Entropy: 0
<Window: 408 > X:[3,4] Y:[-8,-7]
Found Entropy: 0
<Window: 409 > X:[3,4] Y:[-7,-6]
Found Entropy: 0
<Window: 410 > X:[3, 4] Y:[-6, -5]
Found Entropy: 0
<Window: 411 > X:[ 3 , 4 ] Y:[ -5 , -4 ]
Found Entropy: 0
\{\text{Window: } 412 > X:[3,4] Y:[-4,-3]
Found Entropy: 0
\langle Window: 413 \rangle X: [3, 4] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 414 \rangle X:[3,4] Y:[-2,-1]
Found Entropy: 0
<Window: 415 > X:[3, 4] Y:[-1, 0]
Found Entropy: 0
<Window: 416 > X:[ 3 , 4 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 417 > X:[3, 4] Y:[1, 2]
Found Entropy: 0
<Window: 418 > X:[3, 4] Y:[2, 3]
Found Entropy: 0
<Window: 419 > X:[ 3 , 4 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 420 > X:[ 3 , 4 ] Y:[ 4 , 5 ]
Found Entropy: 0
\{\text{Window: } 421 > X:[4,5] Y:[-9,-8]
Found Entropy: 0
<Window: 422 > X:[ 4 , 5 ] Y:[ -8 , -7 ]
Found Entropy: 0
\{\text{Window: } 423 > X: [4, 5] Y: [-7, -6]
Found Entropy: 0
\{\text{Window: } 424 > X:[4,5] Y:[-6,-5]
```

```
Found Entropy: 0
<Window: 425 > X:[4,5] Y:[-5,-4]
Found Entropy: 0
\{\text{Window: } 426 > X: [4, 5] Y: [-4, -3]
Found Entropy: 0
\{\text{Window: } 427 > X: [4, 5] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 428 \rangle X: [4, 5] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 429 \rangle X: [4, 5] Y: [-1, 0]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 430 > X:[ 4 , 5 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 431 > X:[4,5] Y:[1,2]
Found Entropy: 0
<Window: 432 > X:[ 4 , 5 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 433 > X:[4,5] Y:[3,4]
Found Entropy: 0
<Window: 434 > X:[ 4 , 5 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 435 > X:[5,6] Y:[-9,-8]
Found Entropy: 0
<Window: 436 > X:[ 5 , 6 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 437 > X:[5,6] Y:[-7,-6]
Found Entropy: 0
<Window: 438 > X:[5,6] Y:[-6,-5]
Found Entropy: 0
<Window: 439 > X:[5,6] Y:[-5,-4]
Found Entropy: 0
<Window: 440 > X:[5,6] Y:[-4,-3]
Found Entropy: 0
\langle \text{Window}: 441 \rangle X: [5, 6] Y: [-3, -2]
Found Entropy: 0
\{\text{Window: } 442 > X: [5, 6] Y: [-2, -1]
Found Entropy: 0
<Window: 443 > X:[5,6] Y:[-1,0]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.6365141682948128
<Window: 444 > X:[ 5 , 6 ] Y:[ 0 , 1 ]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
<Window: 445 > X:[ 5 , 6 ] Y:[ 1 , 2 ]
```

```
Found Entropy: 0
<Window: 446 > X:[5, 6] Y:[2, 3]
Found Entropy: 0
<Window: 447 > X:[5,6] Y:[3,4]
Found Entropy: 0
<Window: 448 > X:[5,6] Y:[4,5]
Found Entropy: 0
<Window: 449 > X:[ 6 , 7 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 450 > X:[6,7] Y:[-8,-7]
Found Entropy: 0
<Window: 451 > X:[ 6 , 7 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 452 > X:[ 6 , 7 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 453 > X:[ 6 , 7 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 454 > X:[6,7] Y:[-4,-3]
Found Entropy: 0
<Window: 455 > X:[6,7] Y:[-3,-2]
Found Entropy: 0
\{\text{Window: } 456 > X: [6, 7] Y: [-2, -1]
Found Entropy: 0
<Window: 457 > X:[6,7] Y:[-1,0]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
<Window: 458 > X:[6, 7] Y:[0, 1]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 459 > X:[6,7] Y:[1,2]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 460 > X:[ 6 , 7 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 461 > X:[6,7] Y:[3,4]
Found Entropy: 0
<Window: 462 > X:[6, 7] Y:[4, 5]
Found Entropy: 0
<Window: 463 > X:[ 7 , 8 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 464 > X:[7,8] Y:[-8,-7]
Found Entropy: 0
<Window: 465 > X:[ 7 , 8 ] Y:[ -7 , -6 ]
Found Entropy: 0
```

```
<Window: 466 > X:[ 7 , 8 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 467 > X:[7,8] Y:[-5,-4]
Found Entropy: 0
\{\text{Window: } 468 > X: [7, 8] Y: [-4, -3]
Found Entropy: 0
<Window: 469 > X:[7,8] Y:[-3,-2]
Found Entropy: 0
\{\text{Window: } 470 > \text{X:} [7, 8] \text{ Y:} [-2, -1]
Found a sample of class: 1
Found Entropy: 0.0
\{\text{Window}: 471 > X: [7, 8] Y: [-1, 0]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 472 > X:[7,8] Y:[0,1]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 1.0397207708399179
<Window: 473 > X:[ 7 , 8 ] Y:[ 1 , 2 ]
Found Entropy: 0
\{\text{Window: } 474 > X:[7,8] Y:[2,3]
Found Entropy: 0
<Window: 475 > X:[7,8] Y:[3,4]
Found Entropy: 0
<Window: 476 > X:[ 7 , 8 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 477 > X:[8,9] Y:[-9,-8]
Found Entropy: 0
<Window: 478 > X:[8,9] Y:[-8,-7]
Found Entropy: 0
<Window: 479 > X:[8,9] Y:[-7,-6]
Found Entropy: 0
<Window: 480 > X:[8,9] Y:[-6,-5]
Found Entropy: 0
<Window: 481 > X:[8,9] Y:[-5,-4]
Found Entropy: 0
<Window: 482 > X:[8,9] Y:[-4,-3]
Found Entropy: 0
<Window: 483 > X:[8, 9] Y:[-3, -2]
Found Entropy: 0
<Window: 484 > X:[8,9] Y:[-2,-1]
Found Entropy: 0
<Window: 485 > X:[8,9] Y:[-1,0]
Found a sample of class: 2
Found a sample of class: 2
```

```
Found a sample of class: 2
Found Entropy: 0.0
<Window: 486 > X:[ 8 , 9 ] Y:[ 0 , 1 ]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 487 > X:[ 8 , 9 ] Y:[ 1 , 2 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 488 > X:[ 8 , 9 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 489 > X:[ 8 , 9 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 490 > X:[8, 9] Y:[4, 5]
Found Entropy: 0
<Window: 491 > X:[ 9 , 10 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 492 > X:[ 9 , 10 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 493 > X:[ 9 , 10 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 494 > X:[ 9 , 10 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 495 > X:[9, 10] Y:[-5, -4]
Found Entropy: 0
\langle \text{Window}: 496 \rangle X: [9, 10] Y: [-4, -3]
Found Entropy: 0
<Window: 497 > X:[9, 10] Y:[-3, -2]
Found Entropy: 0
<Window: 498 > X:[ 9 , 10 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 499 > X:[ 9 , 10 ] Y:[ -1 , 0 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 500 > X:[ 9 , 10 ] Y:[ 0 , 1 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 501 > X:[ 9 , 10 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 502 > X:[ 9 , 10 ] Y:[ 2 , 3 ]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
<Window: 503 > X:[ 9 , 10 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 504 > X:[ 9 , 10 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 505 > X:[ 10 , 11 ] Y:[ -9 , -8 ]
```

```
Found Entropy: 0
<Window: 506 > X:[ 10 , 11 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 507 > X:[ 10 , 11 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 508 > X:[ 10 , 11 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 509 > X:[ 10 , 11 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 510 \rangle X: [10, 11] Y: [-4, -3]
Found Entropy: 0
\forall X:[10, 11] Y:[-3, -2]
Found Entropy: 0
\forall X:[10, 11] Y:[-2, -1]
Found Entropy: 0
<Window: 513 > X:[ 10 , 11 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 514 > X:[ 10 , 11 ] Y:[ 0 , 1 ]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 1.0397207708399179
<Window: 515 > X:[ 10 , 11 ] Y:[ 1 , 2 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 516 > X:[ 10 , 11 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 517 > X:[ 10 , 11 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 518 > X:[ 10 , 11 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 519 > X:[ 11 , 12 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 520 > X:[ 11 , 12 ] Y:[ -8 , -7 ]
Found Entropy: 0
\{Window: 521 > X:[11, 12] Y:[-7, -6]
Found Entropy: 0
<Window: 522 > X:[ 11 , 12 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 523 > X:[ 11 , 12 ] Y:[ -5 , -4 ]
Found Entropy: 0
\forall Window: 524 > X:[ 11 , 12 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: 525} \rangle \text{ X:[ 11 , 12 ] Y:[ -3 , -2 ]}
Found Entropy: 0
<Window: 526 > X:[ 11 , 12 ] Y:[ -2 , -1 ]
Found Entropy: 0
```

```
<Window: 527 > X:[ 11 , 12 ] Y:[ -1 , 0 ]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
<Window: 528 > X:[ 11 , 12 ] Y:[ 0 , 1 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 529 > X:[ 11 , 12 ] Y:[ 1 , 2 ]
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 0.6931471805599453
<Window: 530 > X:[ 11 , 12 ] Y:[ 2 , 3 ]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
<Window: 531 > X:[ 11 , 12 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 532 > X:[11, 12] Y:[4, 5]
Found Entropy: 0
<Window: 533 > X:[ 12 , 13 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window: } 534 \rangle \text{ X:} [ 12 , 13 ] \text{ Y:} [ -8 , -7 ]
Found Entropy: 0
\langle \text{Window: 535} \rangle X: [12, 13] Y: [-7, -6]
Found Entropy: 0
<Window: 536 > X:[ 12 , 13 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 537 > X:[ 12 , 13 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window: 538} \rangle \text{ X:[ 12 , 13 ] Y:[ -4 , -3 ]}
Found Entropy: 0
\langle \text{Window: 539} \rangle X: [12, 13] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 540 \rangle X: [12, 13] Y: [-2, -1]
Found Entropy: 0
<Window: 541 > X:[ 12 , 13 ] Y:[ -1 , 0 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 542 > X:[ 12 , 13 ] Y:[ 0 , 1 ]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.6365141682948128
<Window: 543 > X:[ 12 , 13 ] Y:[ 1 , 2 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 544 > X:[ 12 , 13 ] Y:[ 2 , 3 ]
```

```
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.6931471805599453
<Window: 545 > X:[ 12 , 13 ] Y:[ 3 , 4 ]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 546 > X:[ 12 , 13 ] Y:[ 4 , 5 ]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
\langle \text{Window: 547} \rangle \text{ X:[ 13 , 14 ] Y:[ -9 , -8 ]}
Found Entropy: 0
\langle \text{Window: 548} \rangle \text{ X:[ 13 , 14 ] Y:[ -8 , -7 ]}
Found Entropy: 0
<Window: 549 > X:[13, 14] Y:[-7, -6]
Found Entropy: 0
<Window: 550 > X:[ 13 , 14 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 551 > X:[ 13 , 14 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 552 > X:[ 13 , 14 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 553 \rangle X: [13, 14] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 554 \rangle X: [13, 14] Y: [-2, -1]
Found Entropy: 0
<Window: 555 > X:[ 13 , 14 ] Y:[ -1 , 0 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 556 > X:[ 13 , 14 ] Y:[ 0 , 1 ]
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 557 > X:[ 13 , 14 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 558 > X:[ 13 , 14 ] Y:[ 2 , 3 ]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6365141682948128
<Window: 559 > X:[ 13 , 14 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 560 > X:[ 13 , 14 ] Y:[ 4 , 5 ]
Found Entropy: 0
```

```
<Window: 561 > X:[ 14 , 15 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 562 \rangle X: [14, 15] Y: [-8, -7]
Found Entropy: 0
<Window: 563 > X:[ 14 , 15 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 564 > X:[ 14 , 15 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 565 > X:[ 14 , 15 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 566 > X:[ 14 , 15 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 567 \rangle X: [14, 15] Y: [-3, -2]
Found Entropy: 0
<Window: 568 > X:[ 14 , 15 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 569 > X:[ 14 , 15 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 570 > X:[ 14 , 15 ] Y:[ 0 , 1 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 571 > X:[ 14 , 15 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 572 > X:[ 14 , 15 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 573 > X:[ 14 , 15 ] Y:[ 3 , 4 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 574 > X:[ 14 , 15 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 575 \rangle X: [15, 16] Y: [-9, -8]
Found Entropy: 0
<Window: 576 > X:[ 15 , 16 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 577 > X:[ 15 , 16 ] Y:[ -7 , -6 ]
Found Entropy: 0
\langle \text{Window}: 578 \rangle X: [15, 16] Y: [-6, -5]
Found Entropy: 0
<Window: 579 > X:[ 15 , 16 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 580 > X:[ 15 , 16 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: 581} \rangle \text{ X:[ 15 , 16 ] Y:[ -3 , -2 ]}
Found Entropy: 0
<Window: 582 > X:[ 15 , 16 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 583 > X:[ 15 , 16 ] Y:[ -1 , 0 ]
Found Entropy: 0
```

```
<Window: 584 > X:[ 15 , 16 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 585 > X:[ 15 , 16 ] Y:[ 1 , 2 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 586 > X:[ 15 , 16 ] Y:[ 2 , 3 ]
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 587 > X:[ 15 , 16 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 588 > X:[ 15 , 16 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 589 > X:[ 16 , 17 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 590 > X:[ 16 , 17 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 591 > X:[ 16 , 17 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 592 > X:[ 16 , 17 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 593 > X:[ 16 , 17 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 594 \rangle X: [16, 17] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window: 595} \rangle X: [16, 17] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 596 \rangle X: [16, 17] Y: [-2, -1]
Found Entropy: 0
<Window: 597 > X:[ 16 , 17 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 598 > X:[ 16 , 17 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 599 > X:[ 16 , 17 ] Y:[ 1 , 2 ]
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 600 > X:[ 16 , 17 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 601 > X:[ 16 , 17 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.6365141682948128
<Window: 602 > X:[ 16 , 17 ] Y:[ 4 , 5 ]
```

```
Found a sample of class: 0
Found Entropy: 0.0
<Window: 603 > X:[ 17 , 18 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 604 > X:[17, 18] Y:[-8, -7]
Found Entropy: 0
<Window: 605 > X:[ 17 , 18 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 606 > X:[ 17 , 18 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 607 > X:[ 17 , 18 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 608 > X:[ 17 , 18 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 609 \rangle \ \text{X:[} 17 , 18 \ ] \ \text{Y:[} -3 , -2 \ ]
Found Entropy: 0
\langle \text{Window: 610} \rangle X: [17, 18] Y: [-2, -1]
Found Entropy: 0
<Window: 611 > X:[ 17 , 18 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 612 > X:[ 17 , 18 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 613 > X:[ 17 , 18 ] Y:[ 1 , 2 ]
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 614 > X:[ 17 , 18 ] Y:[ 2 , 3 ]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.5623351446188083
<Window: 615 > X:[ 17 , 18 ] Y:[ 3 , 4 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 616 > X:[ 17 , 18 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 617 > X:[ 18 , 19 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 618 > X:[ 18 , 19 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 619 > X:[ 18 , 19 ] Y:[ -7 , -6 ]
Found Entropy: 0
\langle \text{Window: } 620 \rangle \text{ X:} [ 18 , 19 ] \text{ Y:} [ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 621 \rangle X: [ 18 , 19 ] Y: [ -5 , -4 ]
Found Entropy: 0
\langle \text{Window: } 622 \rangle \text{ X:} [ 18 , 19 ] \text{ Y:} [ -4 , -3 ]
```

```
Found Entropy: 0
<Window: 623 > X:[ 18 , 19 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 624 > X:[ 18 , 19 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 625 > X:[ 18 , 19 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 626 > X:[ 18 , 19 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 627 > X:[ 18 , 19 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 628 > X:[ 18 , 19 ] Y:[ 2 , 3 ]
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 629 > X:[ 18 , 19 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6365141682948128
<Window: 630 > X:[ 18 , 19 ] Y:[ 4 , 5 ]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window: } 631 \rangle \text{ X:} [19, 20] \text{ Y:} [-9, -8]
Found Entropy: 0
<Window: 632 > X:[ 19 , 20 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 633 > X:[ 19 , 20 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 634 > X:[ 19 , 20 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 635 > X:[ 19 , 20 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 636 \rangle X: [19, 20] Y: [-4, -3]
Found Entropy: 0
\{Window: 637 > X:[19, 20] Y:[-3, -2]
Found Entropy: 0
\langle \text{Window}: 638 \rangle X: [19, 20] Y: [-2, -1]
Found Entropy: 0
<Window: 639 > X:[ 19 , 20 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 640 > X:[ 19 , 20 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 641 > X:[ 19 , 20 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 642 > X:[ 19 , 20 ] Y:[ 2 , 3 ]
Found Entropy: 0
```

```
<Window: 643 > X:[ 19 , 20 ] Y:[ 3 , 4 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 644 > X:[ 19 , 20 ] Y:[ 4 , 5 ]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 0.5004024235381879
\{\text{Window: } 645 > X: [20, 21] Y: [-9, -8]
Found Entropy: 0
<Window: 646 > X:[ 20 , 21 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 647 > X:[ 20 , 21 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 648 > X:[ 20 , 21 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 649 > X:[ 20 , 21 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 650 \rangle X: [20, 21] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window: } 651 \rangle \ \text{X:} [ 20 , 21 ] \ \text{Y:} [ -3 , -2 ]
Found Entropy: 0
\langle \text{Window: } 652 \rangle \text{ X:} [20, 21] \text{ Y:} [-2, -1]
Found Entropy: 0
<Window: 653 > X:[ 20 , 21 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 654 > X:[ 20 , 21 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 655 > X:[ 20 , 21 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 656 > X:[ 20 , 21 ] Y:[ 2 , 3 ]
Found Entropy: 0
\langle Window: 657 \rangle X: [20, 21] Y: [3, 4]
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 0.6931471805599453
<Window: 658 > X:[ 20 , 21 ] Y:[ 4 , 5 ]
Found a sample of class: 0
Found Entropy: 0.0
Total Count: 658
Expected Count: 658
OKAY: True
----Done--- 21.792007983531576
Done!
-26 21 -9 5
You Can use this matrix now.
```

```
X_{min} = -26
X_max= 21
Y_{min} = -9
Y_max= 5
And the Matrix Shape: 47 * 14
<Window: 1 > X:[ -26 , -25 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window: 2} \rangle \text{ X:[-26,-25] Y:[-8,-7]}
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.6931471805599453
\{\text{Window: 3 > X: [-26, -25] Y: [-7, -6]}
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6931471805599453
\{\text{Window: 4} > \text{X:[-26,-25]} \text{Y:[-6,-5]}
Found Entropy: 0
\langle \text{Window}: 5 \rangle X: [-26, -25] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 6 \rangle X: [-26, -25] Y: [-4, -3]
Found Entropy: 0
\{Window: 7 > X:[ -26 , -25 ] Y:[ -3 , -2 ]
Found Entropy: 0
\{\text{Window: 8 > X: [-26, -25] Y: [-2, -1]}
Found Entropy: 0
\langle \text{Window: 9 > X:[-26,-25] Y:[-1,0]}
Found Entropy: 0
\forall 10 > X: [-26, -25] Y: [0, 1]
Found Entropy: 0
\forall X: [-26, -25] Y: [1, 2]
Found Entropy: 0
\{Window: 12 > X:[ -26 , -25 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 13 > X:[ -26 , -25 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 14 > X:[ -26 , -25 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 15 \rangle X: [-25, -24] Y: [-9, -8]
Found Entropy: 0
<Window: 16 > X:[ -25 , -24 ] Y:[ -8 , -7 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
\langle \text{Window}: 17 > X: [-25, -24] Y: [-7, -6]
Found a sample of class: 2
Found a sample of class: 2
```

```
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.6931471805599453
<Window: 18 > X:[ -25 , -24 ] Y:[ -6 , -5 ]
Found a sample of class: 1
Found Entropy: 0.0
\langle \text{Window: } 19 \rangle \ \text{X:} [ -25 , -24 ] \ \text{Y:} [ -5 , -4 ]
Found Entropy: 0
\{Window: 20 > X: [ -25 , -24 ] Y: [ -4 , -3 ]
Found Entropy: 0
\{Window: 21 > X:[ -25 , -24 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window}: 22 \rangle X: [-25, -24] Y: [-2, -1]
Found Entropy: 0
\{Window: 23 > X:[ -25 , -24 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 24 > X:[ -25 , -24 ] Y:[ 0 , 1 ]
Found Entropy: 0
\forall x \in X : [-25, -24] Y : [1, 2]
Found Entropy: 0
<Window: 26 > X:[ -25 , -24 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 27 > X:[ -25 , -24 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 28 > X:[ -25 , -24 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 29 \rangle \text{ X:} [ -24 , -23 ] \text{ Y:} [ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 30 \rangle X: [-24, -23] Y: [-8, -7]
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.6931471805599453
\langle \text{Window}: 31 \rangle X: [-24, -23] Y: [-7, -6]
Found a sample of class: 1
Found Entropy: 0.0
\langle \text{Window}: 32 \rangle X: [-24, -23] Y: [-6, -5]
Found a sample of class: 1
Found Entropy: 0.0
\langle \text{Window}: 33 \rangle X: [-24, -23] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 34 \rangle X: [-24, -23] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 35 \rangle X: [-24, -23] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 36 \rangle X: [-24, -23] Y: [-2, -1]
```

```
Found Entropy: 0
<Window: 37 > X:[ -24 , -23 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 38 > X:[-24, -23] Y:[0, 1]
Found Entropy: 0
\forall x = 1  \forall x = 1 
Found Entropy: 0
<Window: 40 > X:[ -24 , -23 ] Y:[ 2 , 3 ]
Found Entropy: 0
\langle \text{Window}: 41 \rangle X: [-24, -23] Y: [3, 4]
Found Entropy: 0
\{\text{Window: } 42 > X: [-24, -23] Y: [4, 5]
Found Entropy: 0
<Window: 43 > X:[-23, -22] Y:[-9, -8]
Found Entropy: 0
\{\text{Window: } 44 > \text{X:} [-23, -22] \text{ Y:} [-8, -7] \}
Found a sample of class: 2
Found Entropy: 0.0
\{\text{Window: } 45 > \text{X:} [-23, -22] \text{ Y:} [-7, -6] \}
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.5623351446188083
\langle \text{Window}: 46 \rangle X: [-23, -22] Y: [-6, -5]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
\langle \text{Window}: 47 \rangle X: [-23, -22] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window: } 48 \rangle \ \text{X:[} -23 , -22 \ ] \ \text{Y:[} -4 , -3 \ ]
Found Entropy: 0
\langle \text{Window}: 49 \rangle X: [-23, -22] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 50 \rangle X: [-23, -22] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 51 \rangle X: [-23, -22] Y: [-1, 0]
Found Entropy: 0
<Window: 52 > X:[ -23 , -22 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 53 > X:[ -23 , -22 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 54 > X:[ -23 , -22 ] Y:[ 2 , 3 ]
Found Entropy: 0
\langle \text{Window: } 55 \rangle \ \text{X:[} -23 \ , -22 \ ] \ \text{Y:[} 3 \ , 4 \ ]
Found Entropy: 0
\langle \text{Window: 56} \rangle X: [-23, -22] Y: [4, 5]
Found Entropy: 0
```

```
\langle \text{Window}: 57 \rangle X: [-22, -21] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window: 58} \rangle \text{ X:} [-22, -21] \text{ Y:} [-8, -7]
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.6931471805599453
\langle \text{Window}: 59 \rangle X: [-22, -21] Y: [-7, -6]
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 0.6931471805599453
\{\text{Window: } 60 > \text{X:} [-22, -21] \text{ Y:} [-6, -5] \}
Found Entropy: 0
\langle \text{Window}: 61 \rangle X: [-22, -21] Y: [-5, -4]
Found Entropy: 0
\{\text{Window: } 62 > \text{X:} [-22, -21] \text{ Y:} [-4, -3] \}
Found Entropy: 0
\langle \text{Window: } 63 \rangle \text{ X: [ } -22 \text{ , } -21 \text{ ] } \text{ Y: [ } -3 \text{ , } -2 \text{ ]}
Found Entropy: 0
\{\text{Window: } 64 > X: [-22, -21] \ Y: [-2, -1] \}
Found Entropy: 0
\langle \text{Window}: 65 \rangle X: [-22, -21] Y: [-1, 0]
Found Entropy: 0
<Window: 66 > X:[ -22 , -21 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 67 > X:[ -22 , -21 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 68 > X:[ -22 , -21 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 69 > X:[ -22 , -21 ] Y:[ 3 , 4 ]
Found Entropy: 0
\{\text{Window: 70} > \text{X:[-22,-21]} \text{ Y:[4,5]}
Found Entropy: 0
\{\text{Window: 71} > \text{X:} [-21, -20] \text{ Y:} [-9, -8] \}
Found a sample of class: 2
Found Entropy: 0.0
\forall x \in Y : [-21, -20] Y : [-8, -7]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 1.0986122886681096
\forall X: [-21, -20] Y: [-7, -6]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.6931471805599453
```

```
\langle \text{Window}: 74 \rangle X: [-21, -20] Y: [-6, -5]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
\langle \text{Window}: 75 \rangle X: [-21, -20] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 76 \rangle X: [-21, -20] Y: [-4, -3]
Found Entropy: 0
\{Window: 77 > X:[ -21 , -20 ] Y:[ -3 , -2 ]
Found Entropy: 0
\{Window: 78 > X:[ -21 , -20 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 79 > X:[ -21 , -20 ] Y:[ -1 , 0 ]
Found Entropy: 0
\{\text{Window: 80} > \text{X:[-21,-20]} \text{Y:[0,1]}
Found Entropy: 0
<Window: 81 > X:[ -21 , -20 ] Y:[ 1 , 2 ]
Found Entropy: 0
\{Window: 82 > X:[ -21 , -20 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 83 > X:[ -21 , -20 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 84 > X:[ -21 , -20 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 85 \rangle \text{ X: } [-20, -19] \text{ Y: } [-9, -8]
Found Entropy: 0
\langle \text{Window: 86} \rangle \text{ X: [ -20 , -19 ] Y: [ -8 , -7 ]}
Found a sample of class: 1
Found Entropy: 0.0
<Window: 87 > X:[ -20 , -19 ] Y:[ -7 , -6 ]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 1.0397207708399179
\langle \text{Window: 88} \rangle X: [-20, -19] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window: 89} \rangle \text{ X: [ -20 , -19 ] Y: [ -5 , -4 ]}
Found Entropy: 0
\langle \text{Window: } 90 \rangle \ \text{X:} [ -20 , -19 ] \ \text{Y:} [ -4 , -3 ]
Found Entropy: 0
<Window: 91 > X:[ -20 , -19 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window: } 92 \rangle \text{ X: [ } -20 \text{ , } -19 \text{ ] } \text{ Y: [ } -2 \text{ , } -1 \text{ ]}
Found Entropy: 0
\langle \text{Window: 93} \rangle \text{ X: [ -20 , -19 ] Y: [ -1 , 0 ]}
Found Entropy: 0
<Window: 94 > X:[ -20 , -19 ] Y:[ 0 , 1 ]
```

```
Found Entropy: 0
\forall x \in \mathbb{Z} < Window: 95 > X: [ -20 , -19 ] Y: [ 1 , 2 ]
Found Entropy: 0
\{\text{Window: 96} > \text{X:[-20,-19]} \text{ Y:[2,3]}
Found Entropy: 0
\langle \text{Window: } 97 \rangle X:[-20, -19] Y:[3, 4]
Found Entropy: 0
\langle \text{Window: 98} \rangle \text{ X:[-20,-19] Y:[4,5]}
Found Entropy: 0
<Window: 99 > X:[ -19 , -18 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 100 > X:[ -19 , -18 ] Y:[ -8 , -7 ]
Found a sample of class: 1
Found Entropy: 0.0
\langle \text{Window: } 101 \rangle \ \text{X:[} -19 \ , -18 \ ] \ \text{Y:[} -7 \ , -6 \ ]
Found Entropy: 0
\langle \text{Window: } 102 \rangle \text{ X:[} -19 , -18 ] \text{ Y:[} -6 , -5 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 103 > X:[ -19 , -18 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window: } 104 \rangle \ \text{X:[} -19 \ , -18 \ ] \ \text{Y:[} -4 \ , -3 \ ]
Found Entropy: 0
<Window: 105 > X:[ -19 , -18 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window}: 106 \rangle X: [-19, -18] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window: } 107 \rangle X:[-19, -18] Y:[-1, 0]
Found Entropy: 0
<Window: 108 > X:[ -19 , -18 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window: } 109 \rangle \ \text{X:[} -19 \ , -18 \ ] \ \text{Y:[} 1 \ , 2 \ ]
Found Entropy: 0
<Window: 110 > X:[ -19 , -18 ] Y:[ 2 , 3 ]
Found Entropy: 0
\langle \text{Window: } 111 \rangle \ \text{X:[} -19 \ , -18 \ ] \ \text{Y:[} 3 \ , 4 \ ]
Found Entropy: 0
<Window: 112 > X:[ -19 , -18 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 113 > X:[ -18 , -17 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 114 > X:[ -18 , -17 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 115 > X:[ -18 , -17 ] Y:[ -7 , -6 ]
Found Entropy: 0
\langle \text{Window}: 116 \rangle X: [-18, -17] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 117 > X:[-18, -17] Y:[-5, -4]
```

```
Found Entropy: 0
<Window: 118 > X:[ -18 , -17 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 119 > X:[ -18 , -17 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window: } 120 \rangle \text{ X:[} -18 , -17 ] \text{ Y:[} -2 , -1 ]
Found Entropy: 0
\langle \text{Window: } 121 \rangle \ \text{X:[} -18 \ , -17 \ ] \ \text{Y:[} -1 \ , 0 \ ]
Found Entropy: 0
<Window: 122 > X:[ -18 , -17 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 123 > X:[ -18 , -17 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 124 > X:[ -18 , -17 ] Y:[ 2 , 3 ]
Found Entropy: 0
\langle \text{Window: } 125 \rangle X:[-18, -17] Y:[3, 4]
Found Entropy: 0
\langle \text{Window}: 126 \rangle X: [-18, -17] Y: [4, 5]
Found Entropy: 0
\langle \text{Window}: 127 \rangle X: [-17, -16] Y: [-9, -8]
Found Entropy: 0
<Window: 128 > X:[ -17 , -16 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 129 > X:[ -17 , -16 ] Y:[ -7 , -6 ]
Found Entropy: 0
\langle \text{Window}: 130 \rangle X: [-17, -16] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window: } 131 \rangle \ \text{X:[} -17 \ , -16 \ ] \ \text{Y:[} -5 \ , -4 \ ]
Found Entropy: 0
\langle \text{Window}: 132 \rangle X: [-17, -16] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window: } 133 \rangle \ \text{X:[} -17 \ , -16 \ ] \ \text{Y:[} -3 \ , -2 \ ]
Found Entropy: 0
<Window: 134 > X:[ -17 , -16 ] Y:[ -2 , -1 ]
Found Entropy: 0
\langle \text{Window: } 135 \rangle \ \text{X:[} -17 \ , -16 \ ] \ \text{Y:[} -1 \ , 0 \ ]
Found Entropy: 0
<Window: 136 > X:[ -17 , -16 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 137 > X:[ -17 , -16 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 138 > X:[ -17 , -16 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 139 > X:[ -17 , -16 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 140 > X:[ -17 , -16 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle Window: 141 \rangle X:[-16, -15] Y:[-9, -8]
```

```
Found Entropy: 0
<Window: 142 > X:[ -16 , -15 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 143 > X:[ -16 , -15 ] Y:[ -7 , -6 ]
Found Entropy: 0
\langle \text{Window}: 144 \rangle X: [-16, -15] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window: } 145 \rangle \ \text{X:[} -16 \ , -15 \ ] \ \text{Y:[} -5 \ , -4 \ ]
Found Entropy: 0
\langle \text{Window}: 146 \rangle X: [-16, -15] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 147 > X:[-16, -15] Y:[-3, -2]
Found Entropy: 0
\forall \text{Window: } 148 > X:[-16, -15] Y:[-2, -1]
Found Entropy: 0
<Window: 149 > X:[ -16 , -15 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 150 > X:[ -16 , -15 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 151 > X:[ -16 , -15 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window: } 152 \rangle \ \text{X:[} -16 \ , -15 \ ] \ \text{Y:[} 2 \ , 3 \ ]
Found Entropy: 0
<Window: 153 > X:[ -16 , -15 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window}: 154 \rangle X: [-16, -15] Y: [4, 5]
Found Entropy: 0
\langle \text{Window}: 155 \rangle X: [-15, -14] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 156 \rangle X: [-15, -14] Y: [-8, -7]
Found Entropy: 0
\forall Window: 157 > X:[ -15 , -14 ] Y:[ -7 , -6 ]
Found Entropy: 0
\{Window: 158 > X: [ -15 , -14 ] Y: [ -6 , -5 ] 
Found Entropy: 0
\langle \text{Window}: 159 \rangle X: [-15, -14] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 160 \rangle X: [-15, -14] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 161 \rangle X: [-15, -14] Y: [-3, -2]
Found Entropy: 0
<Window: 162 > X:[ -15 , -14 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 163 > X:[ -15 , -14 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 164 > X:[ -15 , -14 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 165 \rangle X: [-15, -14] Y: [1, 2]
```

```
Found Entropy: 0
<Window: 166 > X:[ -15 , -14 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 167 > X:[ -15 , -14 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 168 > X:[ -15 , -14 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 169 \rangle \ \text{X:[} -14 \ , -13 \ ] \ \text{Y:[} -9 \ , -8 \ ]
Found Entropy: 0
\langle \text{Window}: 170 \rangle X: [-14, -13] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 171 > X:[-14, -13] Y:[-7, -6]
Found Entropy: 0
<Window: 172 > X:[ -14 , -13 ] Y:[ -6 , -5 ]
Found Entropy: 0
\forall 173 > X:[-14, -13] Y:[-5, -4]
Found Entropy: 0
\forall \text{Window: } 174 > X:[-14, -13] Y:[-4, -3]
Found Entropy: 0
\langle \text{Window}: 175 \rangle X: [-14, -13] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 176 \rangle X: [-14, -13] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 177 > X:[-14, -13] Y:[-1, 0]
Found Entropy: 0
\langle \text{Window}: 178 \rangle X: [-14, -13] Y: [0, 1]
Found Entropy: 0
\langle \text{Window: } 179 \rangle X:[-14, -13] Y:[1, 2]
Found Entropy: 0
\forall 180 > X:[-14, -13] Y:[2, 3]
Found Entropy: 0
\langle \text{Window: } 181 \rangle \ \text{X:[} -14 \ , -13 \ ] \ \text{Y:[} 3 \ , 4 \ ]
Found Entropy: 0
<Window: 182 > X:[ -14 , -13 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 183 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} -9 \ , -8 \ ]
Found Entropy: 0
\langle \text{Window: } 184 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} -8 \ , -7 \ ]
Found Entropy: 0
\langle \text{Window: } 185 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} -7 \ , -6 \ ]
Found Entropy: 0
<Window: 186 > X:[ -13 , -12 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 187 > X:[ -13 , -12 ] Y:[ -5 , -4 ]
Found Entropy: 0
\forall Window: 188 > X:[ -13 , -12 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 189 \rangle \ \text{X:[} -13 , -12 \ ] \ \text{Y:[} -3 , -2 \ ]
```

```
Found Entropy: 0
\forall 190 > X:[-13, -12] Y:[-2, -1]
Found Entropy: 0
<Window: 191 > X:[ -13 , -12 ] Y:[ -1 , 0 ]
Found Entropy: 0
\langle \text{Window: } 192 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} 0 \ , 1 \ ]
Found Entropy: 0
\langle \text{Window: 193} \rangle X: [-13, -12] Y: [1, 2]
Found Entropy: 0
\langle \text{Window}: 194 \rangle X: [-13, -12] Y: [2, 3]
Found Entropy: 0
\langle \text{Window: } 195 \rangle \ \text{X:[} -13 \ , -12 \ ] \ \text{Y:[} 3 \ , 4 \ ]
Found Entropy: 0
<Window: 196 > X:[ -13 , -12 ] Y:[ 4 , 5 ]
Found Entropy: 0
\forall \text{Window: } 197 > X:[-12, -11] Y:[-9, -8]
Found Entropy: 0
\forall \text{Window: } 198 > X:[-12, -11] Y:[-8, -7]
Found Entropy: 0
\langle \text{Window}: 199 \rangle X: [-12, -11] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window: } 200 \rangle \text{ X:[} -12 , -11 ] \text{ Y:[} -6 , -5 ]
Found Entropy: 0
<Window: 201 > X:[ -12 , -11 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window}: 202 \rangle X: [-12, -11] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 203 \rangle X: [-12, -11] Y: [-3, -2]
Found Entropy: 0
\forall \text{Window: } 204 > X:[-12, -11] Y:[-2, -1]
Found Entropy: 0
<Window: 205 > X:[-12, -11] Y:[-1, 0]
Found Entropy: 0
\{Window: 206 \} X: [ -12 , -11 ] Y: [ 0 , 1 ]
Found Entropy: 0
\langle \text{Window: } 207 \rangle \text{ X:[} -12 , -11 ] \text{ Y:[} 1 , 2 ]
Found Entropy: 0
\langle \text{Window: } 208 \rangle \ \text{X:[} -12 \ , -11 \ ] \ \text{Y:[} 2 \ , 3 \ ]
Found Entropy: 0
\langle \text{Window: } 209 \rangle \ X: [ -12 , -11 ] \ Y: [ 3 , 4 ]
Found Entropy: 0
<Window: 210 > X:[ -12 , -11 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle Window: 211 \rangle X:[-11, -10] Y:[-9, -8]
Found Entropy: 0
\langle \text{Window}: 212 \rangle X: [-11, -10] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 213 \rangle X: [-11, -10] Y: [-7, -6]
```

```
Found Entropy: 0
<Window: 214 > X:[ -11 , -10 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 215 \rangle X: [-11, -10] Y: [-5, -4]
Found Entropy: 0
<Window: 216 > X:[ -11 , -10 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 217 \rangle X: [-11, -10] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 218 \rangle X: [-11, -10] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window: } 219 \rangle X:[-11, -10] Y:[-1, 0]
Found Entropy: 0
<Window: 220 > X:[ -11 , -10 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window: } 221 \rangle X:[-11, -10] Y:[1, 2]
Found Entropy: 0
\langle \text{Window: } 222 \rangle X:[-11, -10] Y:[2, 3]
Found Entropy: 0
<Window: 223 > X:[ -11 , -10 ] Y:[ 3 , 4 ]
Found Entropy: 0
\langle \text{Window: } 224 \rangle \ \text{X:[} -11 \ , -10 \ ] \ \text{Y:[} 4 \ , 5 \ ]
Found Entropy: 0
\langle \text{Window}: 225 \rangle X: [-10, -9] Y: [-9, -8]
Found Entropy: 0
<Window: 226 > X:[ -10 , -9 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window: } 227 \rangle \text{ X:[} -10 , -9 ] \text{ Y:[} -7 , -6 ]
Found Entropy: 0
\langle \text{Window}: 228 \rangle X: [-10, -9] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 229 \rangle X:[-10, -9] Y:[-5, -4]
Found Entropy: 0
\langle \text{Window}: 230 \rangle X: [-10, -9] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window: } 231 \rangle \text{ X:[} -10 , -9 ] \text{ Y:[} -3 , -2 ]
Found Entropy: 0
\langle \text{Window: } 232 \rangle \text{ X:[} -10 , -9 ] \text{ Y:[} -2 , -1 ]
Found Entropy: 0
\langle \text{Window}: 233 \rangle X: [-10, -9] Y: [-1, 0]
Found Entropy: 0
<Window: 234 > X:[ -10 , -9 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 235 > X:[ -10 , -9 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 236 > X:[ -10 , -9 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 237 > X:[ -10 , -9 ] Y:[ 3 , 4 ]
```

```
Found Entropy: 0
<Window: 238 > X:[-10, -9] Y:[4, 5]
Found Entropy: 0
\forall X: [-9, -8] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window: } 240 \rangle \text{ X:} [ -9 , -8 ] \text{ Y:} [ -8 , -7 ]
Found Entropy: 0
\langle \text{Window: } 241 \rangle \ \text{X:[} -9 \ , -8 \ ] \ \text{Y:[} -7 \ , -6 \ ]
Found Entropy: 0
\langle \text{Window}: 242 \rangle X: [-9, -8] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 243 \rangle X: [-9, -8] Y: [-5, -4]
Found Entropy: 0
<Window: 244 > X:[ -9 , -8 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 245 \rangle X: [-9, -8] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 246 \rangle X: [-9, -8] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 247 \rangle X:[-9, -8] Y:[-1, 0]
Found Entropy: 0
<Window: 248 > X:[ -9 , -8 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 249 > X:[ -9 , -8 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle Window: 250 \rangle X: [-9, -8] Y: [2, 3]
Found Entropy: 0
<Window: 251 > X:[ -9 , -8 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 252 > X:[ -9 , -8 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 253 \rangle X: [-8, -7] Y: [-9, -8]
Found Entropy: 0
<Window: 254 > X:[ -8 , -7 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window}: 255 \rangle X: [-8, -7] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 256 \rangle X: [-8, -7] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 257 \rangle X: [-8, -7] Y: [-5, -4]
Found Entropy: 0
<Window: 258 > X:[ -8 , -7 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 259 > X:[ -8 , -7 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window}: 260 \rangle X: [-8, -7] Y: [-2, -1]
Found Entropy: 0
<Window: 261 > X:[ -8 , -7 ] Y:[ -1 , 0 ]
```

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Found Entropy: 0
<Window: 262 > X:[ -8 , -7 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 263 > X:[-8, -7] Y:[1, 2]
Found Entropy: 0
\langle \text{Window}: 264 \rangle X:[-8, -7] Y:[2, 3]
Found Entropy: 0
<Window: 265 > X:[ -8 , -7 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 266 > X:[ -8 , -7 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 267 \rangle \text{ X:[} -7 , -6 ] \text{ Y:[} -9 , -8 ]
Found Entropy: 0
<Window: 268 > X:[ -7 , -6 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window}: 269 \rangle X: [-7, -6] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 270 \rangle X:[-7,-6] Y:[-6,-5]
Found Entropy: 0
\langle \text{Window}: 271 \rangle X: [-7, -6] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 272 \rangle X: [-7, -6] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 273 \rangle X: [-7, -6] Y: [-3, -2]
Found Entropy: 0
\{Window: 274 \} X: [ -7 , -6 ] Y: [ -2 , -1 ]
Found Entropy: 0
<Window: 275 > X:[-7, -6] Y:[-1, 0]
Found Entropy: 0
<Window: 276 > X:[ -7 , -6 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 277 \rangle X:[-7,-6] Y:[1,2]
Found Entropy: 0
<Window: 278 > X:[-7, -6] Y:[2, 3]
Found Entropy: 0
<Window: 279 > X:[ -7 , -6 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 280 > X:[ -7 , -6 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 281 \rangle \ \text{X:} [ -6 , -5 ] \ \text{Y:} [ -9 , -8 ]
Found Entropy: 0
<Window: 282 > X:[ -6 , -5 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window: 283} \rangle X: [-6, -5] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window: } 284 \rangle \ \text{X:[} -6 \ , -5 \ ] \ \text{Y:[} -6 \ , -5 \ ]
Found Entropy: 0
\langle \text{Window}: 285 \rangle X: [-6, -5] Y: [-5, -4]
```

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Found Entropy: 0
<Window: 286 > X:[ -6 , -5 ] Y:[ -4 , -3 ]
Found Entropy: 0
\forall X: [-6, -5] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window: 288} \rangle X: [-6, -5] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window: 289} \rangle X: [-6, -5] Y: [-1, 0]
Found Entropy: 0
\langle \text{Window}: 290 \rangle X: [-6, -5] Y: [0, 1]
Found Entropy: 0
<Window: 291 > X:[ -6 , -5 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 292 > X:[ -6 , -5 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 293 > X:[ -6 , -5 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 294 > X:[ -6 , -5 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 295 \rangle X: [-5, -4] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window: } 296 \rangle \ \text{X:[} -5 \ , -4 \ ] \ \text{Y:[} -8 \ , -7 \ ]
Found Entropy: 0
\langle \text{Window}: 297 \rangle X: [-5, -4] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 298 \rangle X: [-5, -4] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window: } 299 \rangle X: [-5, -4] Y: [-5, -4]
Found Entropy: 0
<Window: 300 > X:[ -5 , -4 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 301 \rangle X: [-5, -4] Y: [-3, -2]
Found Entropy: 0
<Window: 302 > X:[ -5 , -4 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 303 > X:[ -5 , -4 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 304 > X:[ -5 , -4 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 305 \rangle X: [-5, -4] Y: [1, 2]
Found Entropy: 0
<Window: 306 > X:[ -5 , -4 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 307 > X:[ -5 , -4 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 308 > X:[ -5 , -4 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 309 \rangle \text{ X:} [ -4 , -3 ] \text{ Y:} [ -9 , -8 ]
```

```
Found Entropy: 0
<Window: 310 > X:[ -4 , -3 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 311 > X:[ -4 , -3 ] Y:[ -7 , -6 ]
Found Entropy: 0
\langle \text{Window}: 312 \rangle X: [-4, -3] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 313 \rangle X: [-4, -3] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 314 \rangle X: [-4, -3] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 315 \rangle X: [-4, -3] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 316 \rangle X: [-4, -3] Y: [-2, -1]
Found Entropy: 0
<Window: 317 > X:[ -4 , -3 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 318 > X:[ -4 , -3 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 319 \rangle X: [-4, -3] Y: [1, 2]
Found Entropy: 0
\langle \text{Window}: 320 \rangle X: [-4, -3] Y: [2, 3]
Found Entropy: 0
\langle \text{Window}: 321 \rangle X: [-4, -3] Y: [3, 4]
Found Entropy: 0
\langle \text{Window}: 322 \rangle X: [-4, -3] Y: [4, 5]
Found Entropy: 0
\langle \text{Window}: 323 \rangle X: [-3, -2] Y: [-9, -8]
Found Entropy: 0
<Window: 324 > X:[ -3 , -2 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 325 > X:[ -3 , -2 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 326 > X:[ -3 , -2 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 327 \rangle X: [-3, -2] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 328 \rangle X: [-3, -2] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 329 \rangle X: [-3, -2] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 330 \rangle X: [-3, -2] Y: [-2, -1]
Found Entropy: 0
<Window: 331 > X:[ -3 , -2 ] Y:[ -1 , 0 ]
Found Entropy: 0
\langle \text{Window}: 332 \rangle X: [-3, -2] Y: [0, 1]
Found Entropy: 0
\langle \text{Window}: 333 \rangle X: [-3, -2] Y: [1, 2]
```

```
Found Entropy: 0
\langle \text{Window}: 334 \rangle X:[-3,-2] Y:[2,3]
Found Entropy: 0
<Window: 335 > X:[ -3 , -2 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 336 > X:[ -3 , -2 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 337 \rangle \ \text{X:[} -2 \ , -1 \ ] \ \text{Y:[} -9 \ , -8 \ ]
Found Entropy: 0
\langle \text{Window}: 338 \rangle X: [-2, -1] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 339 \rangle X: [-2, -1] Y: [-7, -6]
Found Entropy: 0
\langle \text{Window}: 340 \rangle X: [-2, -1] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window}: 341 \rangle X: [-2, -1] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 342 \rangle X: [-2, -1] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 343 \rangle X: [-2, -1] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 344 \rangle X: [-2, -1] Y: [-2, -1]
Found Entropy: 0
\langle \text{Window}: 345 \rangle X: [-2, -1] Y: [-1, 0]
Found Entropy: 0
<Window: 346 > X:[ -2 , -1 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 347 \rangle X:[-2,-1] Y:[1,2]
Found Entropy: 0
<Window: 348 > X:[ -2 , -1 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 349 > X:[ -2 , -1 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 350 > X:[-2, -1] Y:[4, 5]
Found Entropy: 0
<Window: 351 > X:[ -1 , 0 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window: } 352 \rangle \text{ X:[} -1 \text{ , 0 ] Y:[} -8 \text{ , } -7 \text{]}
Found Entropy: 0
<Window: 353 > X:[ -1 , 0 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 354 > X:[ -1 , 0 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 355 > X:[ -1 , 0 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 356 > X:[ -1 , 0 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 357 > X:[-1, 0] Y:[-3, -2]
```

```
Found Entropy: 0
<Window: 358 > X:[ -1 , 0 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 359 > X:[-1, 0] Y:[-1, 0]
Found Entropy: 0
<Window: 360 > X:[ -1 , 0 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 361 > X:[ -1 , 0 ] Y:[ 1 , 2 ]
Found Entropy: 0
\langle \text{Window}: 362 \rangle X:[-1, 0] Y:[2, 3]
Found Entropy: 0
<Window: 363 > X:[ -1 , 0 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 364 > X:[ -1 , 0 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 365 > X:[ 0 , 1 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 366 > X:[ 0 , 1 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window}: 367 \rangle X: [0, 1] Y: [-7, -6]
Found Entropy: 0
<Window: 368 > X:[ 0 , 1 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 369 > X:[0,1] Y:[-5,-4]
Found Entropy: 0
\langle \text{Window}: 370 \rangle X: [0, 1] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 371 \rangle X:[0,1] Y:[-3,-2]
Found Entropy: 0
\langle \text{Window}: 372 \rangle X:[0,1] Y:[-2,-1]
Found Entropy: 0
<Window: 373 > X:[ 0 , 1 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 374 > X:[0,1] Y:[0,1]
Found Entropy: 0
<Window: 375 > X:[ 0 , 1 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 376 > X:[ 0 , 1 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 377 > X:[ 0 , 1 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 378 > X:[ 0 , 1 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 379 \rangle X:[1,2] Y:[-9,-8]
Found Entropy: 0
<Window: 380 > X:[ 1 , 2 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window}: 381 \rangle X: [1, 2] Y: [-7, -6]
```

```
Found Entropy: 0
<Window: 382 > X:[1, 2] Y:[-6, -5]
Found Entropy: 0
<Window: 383 > X:[ 1 , 2 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 384 > X:[1, 2] Y:[-4, -3]
Found Entropy: 0
<Window: 385 > X:[1,2] Y:[-3,-2]
Found Entropy: 0
<Window: 386 > X:[ 1 , 2 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 387 > X:[1, 2] Y:[-1, 0]
Found Entropy: 0
<Window: 388 > X:[ 1 , 2 ] Y:[ 0 , 1 ]
Found Entropy: 0
\langle \text{Window}: 389 \rangle X:[1,2] Y:[1,2]
Found Entropy: 0
<Window: 390 > X:[1,2] Y:[2,3]
Found Entropy: 0
<Window: 391 > X:[1, 2] Y:[3, 4]
Found Entropy: 0
<Window: 392 > X:[ 1 , 2 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 393 > X:[ 2 , 3 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle Window: 394 \rangle X: [2, 3] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window}: 395 \rangle X: [2, 3] Y: [-7, -6]
Found Entropy: 0
<Window: 396 > X:[ 2 , 3 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 397 > X:[ 2 , 3 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 398 > X:[ 2 , 3 ] Y:[ -4 , -3 ]
Found Entropy: 0
\forall X: [2, 3] Y: [-3, -2]
Found Entropy: 0
<Window: 400 > X:[ 2 , 3 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 401 > X:[ 2 , 3 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 402 > X:[ 2 , 3 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 403 > X:[ 2 , 3 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 404 > X:[2,3] Y:[2,3]
Found Entropy: 0
<Window: 405 > X:[2,3] Y:[3,4]
```

```
Found Entropy: 0
<Window: 406 > X:[ 2 , 3 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 407 > X:[3,4] Y:[-9,-8]
Found Entropy: 0
<Window: 408 > X:[3, 4] Y:[-8, -7]
Found Entropy: 0
<Window: 409 > X:[3,4] Y:[-7,-6]
Found Entropy: 0
<Window: 410 > X:[3, 4] Y:[-6, -5]
Found Entropy: 0
<Window: 411 > X:[ 3 , 4 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 412 > X:[3, 4] Y:[-4, -3]
Found Entropy: 0
\langle \text{Window}: 413 \rangle X: [3, 4] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 414 \rangle X:[3,4] Y:[-2,-1]
Found Entropy: 0
\langle \text{Window}: 415 \rangle X:[3,4] Y:[-1,0]
Found Entropy: 0
<Window: 416 > X:[ 3 , 4 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 417 > X:[ 3 , 4 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 418 > X:[ 3 , 4 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 419 > X:[3, 4] Y:[3, 4]
Found Entropy: 0
<Window: 420 > X:[ 3 , 4 ] Y:[ 4 , 5 ]
Found Entropy: 0
\{\text{Window: } 421 > X:[4,5] Y:[-9,-8]
Found Entropy: 0
\{\text{Window: } 422 > \text{X:} [4, 5] \text{ Y:} [-8, -7] \}
Found Entropy: 0
<Window: 423 > X:[ 4 , 5 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 424 > X:[ 4 , 5 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 425 > X:[ 4 , 5 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 426 > X:[ 4 , 5 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 427 \rangle X: [4, 5] Y: [-3, -2]
Found Entropy: 0
\{\text{Window: } 428 > X: [4, 5] Y: [-2, -1]
Found Entropy: 0
<Window: 429 > X:[ 4 , 5 ] Y:[ -1 , 0 ]
```

```
Found a sample of class: 1
Found Entropy: 0.0
<Window: 430 > X:[ 4 , 5 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 431 > X:[ 4 , 5 ] Y:[ 1 , 2 ]
Found Entropy: 0
\{\text{Window: } 432 > X: [4, 5] Y: [2, 3]
Found Entropy: 0
<Window: 433 > X:[4,5] Y:[3,4]
Found Entropy: 0
\langle Window: 434 \rangle X: [4, 5] Y: [4, 5]
Found Entropy: 0
<Window: 435 > X:[5,6] Y:[-9,-8]
Found Entropy: 0
<Window: 436 > X:[5,6] Y:[-8,-7]
Found Entropy: 0
<Window: 437 > X:[5,6] Y:[-7,-6]
Found Entropy: 0
<Window: 438 > X:[5,6] Y:[-6,-5]
Found Entropy: 0
<Window: 439 > X:[5,6] Y:[-5,-4]
Found Entropy: 0
<Window: 440 > X:[5,6] Y:[-4,-3]
Found Entropy: 0
<Window: 441 > X:[5,6] Y:[-3,-2]
Found Entropy: 0
<Window: 442 > X:[5,6] Y:[-2,-1]
Found Entropy: 0
<Window: 443 > X:[ 5 , 6 ] Y:[ -1 , 0 ]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.6365141682948128
<Window: 444 > X:[5,6] Y:[0,1]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 445 > X:[ 5 , 6 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 446 > X:[ 5 , 6 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 447 > X:[5,6] Y:[3,4]
Found Entropy: 0
<Window: 448 > X:[5,6] Y:[4,5]
Found Entropy: 0
<Window: 449 > X:[ 6 , 7 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 450 > X:[ 6 , 7 ] Y:[ -8 , -7 ]
```

```
Found Entropy: 0
<Window: 451 > X:[6,7] Y:[-7,-6]
Found Entropy: 0
<Window: 452 > X:[6, 7] Y:[-6, -5]
Found Entropy: 0
<Window: 453 > X:[ 6 , 7 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 454 > X:[6,7] Y:[-4,-3]
Found Entropy: 0
\langle \text{Window}: 455 \rangle X: [6, 7] Y: [-3, -2]
Found Entropy: 0
<Window: 456 > X:[ 6 , 7 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 457 > X:[6,7] Y:[-1,0]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
<Window: 458 > X:[ 6 , 7 ] Y:[ 0 , 1 ]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.6365141682948128
<Window: 459 > X:[ 6 , 7 ] Y:[ 1 , 2 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 460 > X:[6,7] Y:[2,3]
Found Entropy: 0
<Window: 461 > X:[ 6 , 7 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 462 > X:[ 6 , 7 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 463 > X:[ 7 , 8 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle Window: 464 \rangle X:[7,8] Y:[-8,-7]
Found Entropy: 0
<Window: 465 > X:[7,8] Y:[-7,-6]
Found Entropy: 0
\{\text{Window: } 466 > X:[7,8] Y:[-6,-5]
Found Entropy: 0
<Window: 467 > X:[7,8] Y:[-5,-4]
Found Entropy: 0
<Window: 468 > X:[ 7 , 8 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 469 > X:[ 7 , 8 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 470 > X:[7,8] Y:[-2,-1]
Found a sample of class: 0
```

```
Found Entropy: 0.0
<Window: 471 > X:[7,8] Y:[-1,0]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\{\text{Window: } 472 > X:[7,8] Y:[0,1]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 1.0397207708399179
<Window: 473 > X:[ 7 , 8 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 474 > X:[7,8] Y:[2,3]
Found Entropy: 0
<Window: 475 > X:[7,8] Y:[3,4]
Found Entropy: 0
<Window: 476 > X:[ 7 , 8 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 477 \rangle X: [8, 9] Y: [-9, -8]
Found Entropy: 0
\langle \text{Window}: 478 \rangle X: [8, 9] Y: [-8, -7]
Found Entropy: 0
<Window: 479 > X:[8,9] Y:[-7,-6]
Found Entropy: 0
<Window: 480 > X:[8, 9] Y:[-6, -5]
Found Entropy: 0
<Window: 481 > X:[8,9] Y:[-5,-4]
Found Entropy: 0
<Window: 482 > X:[8, 9] Y:[-4, -3]
Found Entropy: 0
<Window: 483 > X:[8,9] Y:[-3,-2]
Found Entropy: 0
\{\text{Window: } 484 > X: [8, 9] Y: [-2, -1]
Found Entropy: 0
<Window: 485 > X:[8,9] Y:[-1,0]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.6365141682948128
<Window: 486 > X:[8, 9] Y:[0, 1]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 487 > X:[8, 9] Y:[1, 2]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 488 > X:[8,9] Y:[2,3]
```

```
Found Entropy: 0
<Window: 489 > X:[ 8 , 9 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 490 > X:[8, 9] Y:[4, 5]
Found Entropy: 0
\forall \text{Window: } 491 > X:[9, 10] Y:[-9, -8]
Found Entropy: 0
<Window: 492 > X:[ 9 , 10 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 493 > X:[ 9 , 10 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 494 > X:[ 9 , 10 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 495 > X:[ 9 , 10 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 496 > X:[ 9 , 10 ] Y:[ -4 , -3 ]
Found Entropy: 0
<Window: 497 > X:[ 9 , 10 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 498 > X:[9, 10] Y:[-2, -1]
Found Entropy: 0
<Window: 499 > X:[ 9 , 10 ] Y:[ -1 , 0 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 500 > X:[ 9 , 10 ] Y:[ 0 , 1 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 501 > X:[ 9 , 10 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 502 > X:[ 9 , 10 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 0.6931471805599453
<Window: 503 > X:[ 9 , 10 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 504 > X:[ 9 , 10 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 505 > X:[ 10 , 11 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 506 > X:[ 10 , 11 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 507 > X:[ 10 , 11 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 508 > X:[ 10 , 11 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 509 > X:[ 10 , 11 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window: 510} \rangle \text{ X:[ 10 , 11 ] Y:[ -4 , -3 ]}
```

```
Found Entropy: 0
<Window: 511 > X:[ 10 , 11 ] Y:[ -3 , -2 ]
Found Entropy: 0
<Window: 512 > X:[10, 11] Y:[-2, -1]
Found Entropy: 0
<Window: 513 > X:[ 10 , 11 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 514 > X:[ 10 , 11 ] Y:[ 0 , 1 ]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.5623351446188083
<Window: 515 > X:[ 10 , 11 ] Y:[ 1 , 2 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 516 > X:[ 10 , 11 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 517 > X:[ 10 , 11 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 518 > X:[ 10 , 11 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 519 > X:[ 11 , 12 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 520 > X:[ 11 , 12 ] Y:[ -8 , -7 ]
Found Entropy: 0
\forall X:[11, 12] Y:[-7, -6]
Found Entropy: 0
<Window: 522 > X:[ 11 , 12 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 523 > X:[ 11 , 12 ] Y:[ -5 , -4 ]
Found Entropy: 0
\forall Window: 524 > X:[ 11 , 12 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 525 \rangle X: [11, 12] Y: [-3, -2]
Found Entropy: 0
\{Window: 526 > X:[11, 12] Y:[-2, -1]
Found Entropy: 0
<Window: 527 > X:[ 11 , 12 ] Y:[ -1 , 0 ]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
<Window: 528 > X:[ 11 , 12 ] Y:[ 0 , 1 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 529 > X:[ 11 , 12 ] Y:[ 1 , 2 ]
Found a sample of class: 2
Found a sample of class: 0
```

```
Found Entropy: 0.6931471805599453
<Window: 530 > X:[ 11 , 12 ] Y:[ 2 , 3 ]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
<Window: 531 > X:[ 11 , 12 ] Y:[ 3 , 4 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 532 > X:[ 11 , 12 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 533 > X:[ 12 , 13 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window}: 534 \rangle X: [12, 13] Y: [-8, -7]
Found Entropy: 0
\langle \text{Window: 535} \rangle X: [12, 13] Y: [-7, -6]
Found Entropy: 0
<Window: 536 > X:[ 12 , 13 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window: } 537 \rangle \text{ X:[ } 12 \text{ , } 13 \text{ ] } \text{ Y:[ } -5 \text{ , } -4 \text{ ]}
Found Entropy: 0
<Window: 538 > X:[ 12 , 13 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: 539} \rangle X: [12, 13] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window: 540} \rangle \text{ X:[ 12 , 13 ] Y:[ -2 , -1 ]}
Found Entropy: 0
<Window: 541 > X:[12, 13] Y:[-1, 0]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 542 > X:[ 12 , 13 ] Y:[ 0 , 1 ]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
<Window: 543 > X:[ 12 , 13 ] Y:[ 1 , 2 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 544 > X:[ 12 , 13 ] Y:[ 2 , 3 ]
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.6931471805599453
<Window: 545 > X:[ 12 , 13 ] Y:[ 3 , 4 ]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 1.0397207708399179
<Window: 546 > X:[ 12 , 13 ] Y:[ 4 , 5 ]
```

```
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.6365141682948128
\langle \text{Window}: 547 \rangle X: [13, 14] Y: [-9, -8]
Found Entropy: 0
<Window: 548 > X:[ 13 , 14 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 549 > X:[ 13 , 14 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 550 > X:[ 13 , 14 ] Y:[ -6 , -5 ]
Found Entropy: 0
\langle \text{Window}: 551 \rangle X: [13, 14] Y: [-5, -4]
Found Entropy: 0
\langle \text{Window}: 552 \rangle X: [13, 14] Y: [-4, -3]
Found Entropy: 0
\langle \text{Window}: 553 \rangle X: [13, 14] Y: [-3, -2]
Found Entropy: 0
\{Window: 554 > X:[13,14]Y:[-2,-1]
Found Entropy: 0
<Window: 555 > X:[ 13 , 14 ] Y:[ -1 , 0 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 556 > X:[ 13 , 14 ] Y:[ 0 , 1 ]
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 557 > X:[ 13 , 14 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 558 > X:[ 13 , 14 ] Y:[ 2 , 3 ]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 1.0986122886681096
<Window: 559 > X:[ 13 , 14 ] Y:[ 3 , 4 ]
Found Entropy: 0
<Window: 560 > X:[ 13 , 14 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window}: 561 \rangle X: [14, 15] Y: [-9, -8]
Found Entropy: 0
<Window: 562 > X:[14, 15] Y:[-8, -7]
Found Entropy: 0
<Window: 563 > X:[ 14 , 15 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 564 > X:[ 14 , 15 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 565 > X:[ 14 , 15 ] Y:[ -5 , -4 ]
Found Entropy: 0
```

```
<Window: 566 > X:[ 14 , 15 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window}: 567 \rangle X: [14, 15] Y: [-3, -2]
Found Entropy: 0
\langle \text{Window}: 568 \rangle X: [14, 15] Y: [-2, -1]
Found Entropy: 0
<Window: 569 > X:[14, 15] Y:[-1, 0]
Found Entropy: 0
<Window: 570 > X:[ 14 , 15 ] Y:[ 0 , 1 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 571 > X:[ 14 , 15 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 572 > X:[ 14 , 15 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 573 > X:[ 14 , 15 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 574 > X:[14, 15] Y:[4, 5]
Found Entropy: 0
<Window: 575 > X:[ 15 , 16 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 576 > X:[ 15 , 16 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 577 > X:[ 15 , 16 ] Y:[ -7 , -6 ]
Found Entropy: 0
\langle \text{Window: 578} \rangle X: [15, 16] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window: 579} \rangle X: [15, 16] Y: [-5, -4]
Found Entropy: 0
<Window: 580 > X:[ 15 , 16 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: 581} \rangle \text{ X:[ 15 , 16 ] Y:[ -3 , -2 ]}
Found Entropy: 0
\{Window: 582 > X:[15, 16] Y:[-2, -1]
Found Entropy: 0
<Window: 583 > X:[ 15 , 16 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 584 > X:[ 15 , 16 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 585 > X:[ 15 , 16 ] Y:[ 1 , 2 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 586 > X:[ 15 , 16 ] Y:[ 2 , 3 ]
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 587 > X:[ 15 , 16 ] Y:[ 3 , 4 ]
```

```
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.6931471805599453
<Window: 588 > X:[ 15 , 16 ] Y:[ 4 , 5 ]
Found Entropy: 0
<Window: 589 > X:[ 16 , 17 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 590 > X:[ 16 , 17 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 591 > X:[ 16 , 17 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 592 > X:[ 16 , 17 ] Y:[ -6 , -5 ]
Found Entropy: 0
<Window: 593 > X:[ 16 , 17 ] Y:[ -5 , -4 ]
Found Entropy: 0
<Window: 594 > X:[ 16 , 17 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: 595} \rangle X: [16, 17] Y: [-3, -2]
Found Entropy: 0
<Window: 596 > X:[ 16 , 17 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 597 > X:[ 16 , 17 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 598 > X:[ 16 , 17 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 599 > X:[ 16 , 17 ] Y:[ 1 , 2 ]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
<Window: 600 > X:[ 16 , 17 ] Y:[ 2 , 3 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 601 > X:[ 16 , 17 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 0.6365141682948128
<Window: 602 > X:[ 16 , 17 ] Y:[ 4 , 5 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 603 > X:[ 17 , 18 ] Y:[ -9 , -8 ]
Found Entropy: 0
<Window: 604 > X:[ 17 , 18 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 605 > X:[ 17 , 18 ] Y:[ -7 , -6 ]
Found Entropy: 0
<Window: 606 > X:[ 17 , 18 ] Y:[ -6 , -5 ]
Found Entropy: 0
```

```
<Window: 607 > X:[ 17 , 18 ] Y:[ -5 , -4 ]
Found Entropy: 0
\langle \text{Window: } 608 \rangle \ \text{X:} [ 17 , 18 ] \ \text{Y:} [ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 609 \rangle \text{ X:} [17, 18] \text{ Y:} [-3, -2]
Found Entropy: 0
<Window: 610 > X:[ 17 , 18 ] Y:[ -2 , -1 ]
Found Entropy: 0
<Window: 611 > X:[ 17 , 18 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 612 > X:[ 17 , 18 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 613 > X:[ 17 , 18 ] Y:[ 1 , 2 ]
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 614 > X:[ 17 , 18 ] Y:[ 2 , 3 ]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.6931471805599453
<Window: 615 > X:[ 17 , 18 ] Y:[ 3 , 4 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 616 > X:[ 17 , 18 ] Y:[ 4 , 5 ]
Found Entropy: 0
\langle \text{Window: } 617 \rangle \text{ X:} [ 18 , 19 ] \text{ Y:} [ -9 , -8 ]
Found Entropy: 0
<Window: 618 > X:[ 18 , 19 ] Y:[ -8 , -7 ]
Found Entropy: 0
\langle \text{Window: 619} \rangle X: [18, 19] Y: [-7, -6]
Found Entropy: 0
\{\text{Window: }620 > X:[18,19] Y:[-6,-5]
Found Entropy: 0
\langle \text{Window: } 621 \rangle \text{ X:} [ 18 , 19 ] \text{ Y:} [ -5 , -4 ]
Found Entropy: 0
\langle \text{Window: } 622 \rangle \text{ X:} [ 18 , 19 ] \text{ Y:} [ -4 , -3 ]
Found Entropy: 0
<Window: 623 > X:[ 18 , 19 ] Y:[ -3 , -2 ]
Found Entropy: 0
\langle \text{Window: } 624 \rangle \text{ X:} [ 18 , 19 ] \text{ Y:} [ -2 , -1 ]
Found Entropy: 0
<Window: 625 > X:[ 18 , 19 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 626 > X:[ 18 , 19 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 627 > X:[ 18 , 19 ] Y:[ 1 , 2 ]
```

```
Found Entropy: 0
<Window: 628 > X:[ 18 , 19 ] Y:[ 2 , 3 ]
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.6931471805599453
<Window: 629 > X:[ 18 , 19 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 0.6365141682948128
<Window: 630 > X:[ 18 , 19 ] Y:[ 4 , 5 ]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
\langle \text{Window: } 631 \rangle \ \text{X:} [ 19 , 20 ] \ \text{Y:} [ -9 , -8 ]
Found Entropy: 0
<Window: 632 > X:[ 19 , 20 ] Y:[ -8 , -7 ]
Found Entropy: 0
<Window: 633 > X:[ 19 , 20 ] Y:[ -7 , -6 ]
Found Entropy: 0
\{\text{Window: } 634 > X: [19, 20] Y: [-6, -5]
Found Entropy: 0
\langle \text{Window: } 635 \rangle \text{ X:} [19, 20] \text{ Y:} [-5, -4]
Found Entropy: 0
<Window: 636 > X:[ 19 , 20 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 637 \rangle \text{ X:} [ 19 , 20 ] \text{ Y:} [ -3 , -2 ]
Found Entropy: 0
\langle \text{Window: 638} \rangle \text{ X:} [ 19 , 20 ] \text{ Y:} [ -2 , -1 ]
Found Entropy: 0
<Window: 639 > X:[ 19 , 20 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 640 > X:[ 19 , 20 ] Y:[ 0 , 1 ]
Found Entropy: 0
<Window: 641 > X:[ 19 , 20 ] Y:[ 1 , 2 ]
Found Entropy: 0
\{\text{Window: } 642 > X: [19, 20] Y: [2, 3]
Found Entropy: 0
<Window: 643 > X:[ 19 , 20 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 644 > X:[ 19 , 20 ] Y:[ 4 , 5 ]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.6730116670092565
```

```
<Window: 645 > X:[ 20 , 21 ] Y:[ -9 , -8 ]
Found Entropy: 0
\langle \text{Window: 646} \rangle \text{ X:[ 20 , 21 ] Y:[ -8 , -7 ]}
Found Entropy: 0
\{\text{Window: } 647 > X: [20, 21] Y: [-7, -6]
Found Entropy: 0
\{\text{Window: } 648 > X: [20, 21] Y: [-6, -5]
Found Entropy: 0
\{\text{Window: } 649 > X: [20, 21] Y: [-5, -4]
Found Entropy: 0
<Window: 650 > X:[ 20 , 21 ] Y:[ -4 , -3 ]
Found Entropy: 0
\langle \text{Window: } 651 \rangle \ \text{X:} [ 20 , 21 ] \ \text{Y:} [ -3 , -2 ]
Found Entropy: 0
\langle \text{Window: } 652 \rangle \text{ X:} [ 20 , 21 ] \text{ Y:} [ -2 , -1 ]
Found Entropy: 0
<Window: 653 > X:[ 20 , 21 ] Y:[ -1 , 0 ]
Found Entropy: 0
<Window: 654 > X:[20, 21] Y:[0, 1]
Found Entropy: 0
<Window: 655 > X:[ 20 , 21 ] Y:[ 1 , 2 ]
Found Entropy: 0
<Window: 656 > X:[ 20 , 21 ] Y:[ 2 , 3 ]
Found Entropy: 0
<Window: 657 > X:[ 20 , 21 ] Y:[ 3 , 4 ]
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 0.6931471805599453
<Window: 658 > X:[ 20 , 21 ] Y:[ 4 , 5 ]
Found a sample of class: 1
Found Entropy: 0.0
Total Count: 658
Expected Count: 658
OKAY: True
----Done--- 22.716655925390782
Done!
-26 21 -9 5
You Can use this matrix now.
X_{min} = -26
X_max = 22
Y_{min} = -9
Y_{max} = 6
And the Matrix Shape: 48 * 15
\{Window: 1 > X:[ -26 , -23 ] Y:[ -9 , -6 ]
Found a sample of class: 0
```

```
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 2 \rangle X:[-26, -23] Y:[-6, -3]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
<Window: 3 > X:[ -26 , -23 ] Y:[ -3 , 0 ]
Found Entropy: 0
\{\text{Window: 4 > X:[-26,-23] Y:[0,3]}
Found Entropy: 0
<Window: 5 > X:[ -26 , -23 ] Y:[ 3 , 6 ]
Found Entropy: 0
\{\text{Window: 6} > \text{X:[-23,-20]} \text{Y:[-9,-6]}
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window: 7 > X:[-23,-20] Y:[-6,-3]}
Found a sample of class: 0
```

```
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window: 8 > X:[-23,-20] Y:[-3,0]}
Found Entropy: 0
\langle \text{Window}: 9 \rangle X: [-23, -20] Y: [0, 3]
Found Entropy: 0
\{\text{Window: } 10 > \text{X:} [-23, -20] \text{ Y:} [3, 6]
Found Entropy: 0
\{Window: 11 > X:[ -20 , -17 ] Y:[ -9 , -6 ]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 12 \rangle X: [-20, -17] Y: [-6, -3]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window: } 13 > \text{X:[} -20 , -17 ] \text{ Y:[} -3 , 0 ]
Found Entropy: 0
\langle \text{Window}: 14 > X: [-20, -17] Y: [0, 3]
Found Entropy: 0
\langle \text{Window}: 15 \rangle X: [-20, -17] Y: [3, 6]
Found Entropy: 0
<Window: 16 > X:[ -17 , -14 ] Y:[ -9 , -6 ]
Found Entropy: 0
\forall x \in \mathbb{Z} < Window: 17 > X:[ -17 , -14 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 18 > X:[ -17 , -14 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 19 > X:[ -17 , -14 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 20 > X:[ -17 , -14 ] Y:[ 3 , 6 ]
Found Entropy: 0
\langle \text{Window}: 21 \rangle X: [-14, -11] Y: [-9, -6]
Found Entropy: 0
\langle \text{Window}: 22 \rangle X: [-14, -11] Y: [-6, -3]
Found Entropy: 0
<Window: 23 > X:[ -14 , -11 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 24 > X:[ -14 , -11 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 25 > X:[ -14 , -11 ] Y:[ 3 , 6 ]
Found Entropy: 0
\langle \text{Window: 26} \rangle \text{ X: [-11, -8] Y: [-9, -6]}
```

```
Found Entropy: 0
<Window: 27 > X:[-11, -8] Y:[-6, -3]
Found Entropy: 0
<Window: 28 > X:[-11, -8] Y:[-3, 0]
Found Entropy: 0
<Window: 29 > X:[ -11 , -8 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 30 > X:[ -11 , -8 ] Y:[ 3 , 6 ]
Found Entropy: 0
\langle \text{Window}: 31 \rangle X: [-8, -5] Y: [-9, -6]
Found Entropy: 0
\langle \text{Window}: 32 \rangle X: [-8, -5] Y: [-6, -3]
Found Entropy: 0
<Window: 33 > X:[ -8 , -5 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 34 > X:[ -8 , -5 ] Y:[ 0 , 3 ]
Found Entropy: 0
\langle \text{Window}: 35 \rangle X: [-8, -5] Y: [3, 6]
Found Entropy: 0
\langle \text{Window}: 36 \rangle X: [-5, -2] Y: [-9, -6]
Found Entropy: 0
\langle \text{Window}: 37 \rangle X: [-5, -2] Y: [-6, -3]
Found Entropy: 0
\langle \text{Window}: 38 > X: [-5, -2] Y: [-3, 0]
Found Entropy: 0
\langle \text{Window}: 39 \rangle X: [-5, -2] Y: [0, 3]
Found Entropy: 0
<Window: 40 > X:[ -5 , -2 ] Y:[ 3 , 6 ]
Found Entropy: 0
\{\text{Window: } 41 > X: [-2, 1] Y: [-9, -6]
Found Entropy: 0
<Window: 42 > X:[-2, 1] Y:[-6, -3]
Found Entropy: 0
<Window: 43 > X:[-2, 1] Y:[-3, 0]
Found Entropy: 0
<Window: 44 > X:[ -2 , 1 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 45 > X:[-2, 1] Y:[3, 6]
Found Entropy: 0
<Window: 46 > X:[ 1 , 4 ] Y:[ -9 , -6 ]
Found Entropy: 0
<Window: 47 > X:[ 1 , 4 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 48 > X:[1, 4] Y:[-3, 0]
Found Entropy: 0
<Window: 49 > X:[1, 4] Y:[0, 3]
Found Entropy: 0
<Window: 50 > X:[ 1 , 4 ] Y:[ 3 , 6 ]
```

```
Found Entropy: 0
\{Window: 51 > X:[4,7] Y:[-9,-6]
Found Entropy: 0
\{\text{Window}: 52 > X: [4, 7] Y: [-6, -3]
Found Entropy: 0
\{\text{Window: 53} > X: [4, 7] Y: [-3, 0]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 54 > X:[ 4 , 7 ] Y:[ 0 , 3 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 55 > X:[ 4 , 7 ] Y:[ 3 , 6 ]
Found Entropy: 0
<Window: 56 > X:[ 7 , 10 ] Y:[ -9 , -6 ]
Found Entropy: 0
<Window: 57 > X:[7, 10] Y:[-6, -3]
Found Entropy: 0
<Window: 58 > X:[ 7 , 10 ] Y:[ -3 , 0 ]
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.410116318288409
<Window: 59 > X:[ 7 , 10 ] Y:[ 0 , 3 ]
Found a sample of class: 1
```

```
Found Entropy: 0.0
<Window: 60 > X:[ 7 , 10 ] Y:[ 3 , 6 ]
Found Entropy: 0
<Window: 61 > X:[ 10 , 13 ] Y:[ -9 , -6 ]
Found Entropy: 0
\{\text{Window: } 62 > X: [10, 13] Y: [-6, -3]
Found Entropy: 0
<Window: 63 > X:[ 10 , 13 ] Y:[ -3 , 0 ]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 64 > X:[10, 13] Y:[0, 3]
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.48257756517701206
<Window: 65 > X:[ 10 , 13 ] Y:[ 3 , 6 ]
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.37677016125643675
<Window: 66 > X:[13, 16] Y:[-9, -6]
Found Entropy: 0
<Window: 67 > X:[ 13 , 16 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 68 > X:[ 13 , 16 ] Y:[ -3 , 0 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 69 > X:[ 13 , 16 ] Y:[ 0 , 3 ]
```

```
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6365141682948128
\{\text{Window}: 70 > X: [13, 16] Y: [3, 6]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
\langle \text{Window: 71} \rangle \text{ X: [ 16 , 19 ] Y: [ -9 , -6 ]}
Found Entropy: 0
\forall X: [16, 19] Y: [-6, -3]
Found Entropy: 0
<Window: 73 > X:[ 16 , 19 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 74 > X:[ 16 , 19 ] Y:[ 0 , 3 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 75 > X:[ 16 , 19 ] Y:[ 3 , 6 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 76 > X:[ 19 , 22 ] Y:[ -9 , -6 ]
Found Entropy: 0
```

```
\langle \text{Window}: 77 \rangle X: [19, 22] Y: [-6, -3]
Found Entropy: 0
\{\text{Window: 78} > \text{X:[19,22]} \text{Y:[-3,0]}
Found Entropy: 0
<Window: 79 > X:[19, 22] Y:[0, 3]
Found Entropy: 0
<Window: 80 > X:[ 19 , 22 ] Y:[ 3 , 6 ]
Found a sample of class: 2
Found Entropy: 0.0
Total Count: 80
Expected Count: 80
OKAY: True
----Done--- 1.9059782130166705
Done!
-26 21 -9 5
You Can use this matrix now.
X_{min} = -26
X_max = 22
Y_min = -9
Y_max=6
And the Matrix Shape: 48 * 15
\{\text{Window: 1 > X:[-26,-23] Y:[-9,-6]}
Found a sample of class: 2
Found a sample of class: 0
```

```
Found Entropy: 0.2145591551764051
\{\text{Window: 2 > X:[-26,-23] Y:[-6,-3]}
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
<Window: 3 > X:[ -26 , -23 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 4 > X:[ -26 , -23 ] Y:[ 0 , 3 ]
Found Entropy: 0
\{\text{Window: 5} > \text{X:[-26,-23]} \text{ Y:[3,6]}
Found Entropy: 0
\{\text{Window: 6} > \text{X:[-23,-20]} \text{Y:[-9,-6]}
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 0.40945861869508926
\{\text{Window}: 7 > X: [-23, -20] Y: [-6, -3]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.5623351446188083
<Window: 8 > X:[ -23 , -20 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 9 > X:[ -23 , -20 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 10 > X:[ -23 , -20 ] Y:[ 3 , 6 ]
Found Entropy: 0
\{\text{Window: } 11 > X:[-20, -17] \ Y:[-9, -6] \}
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
```

```
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.45056120886630463
\langle \text{Window}: 12 \rangle X: [-20, -17] Y: [-6, -3]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window: } 13 > \text{X:[} -20 , -17 ] \text{ Y:[} -3 , 0 ]
Found Entropy: 0
\langle \text{Window}: 14 > X: [-20, -17] Y: [0, 3]
Found Entropy: 0
<Window: 15 > X:[ -20 , -17 ] Y:[ 3 , 6 ]
Found Entropy: 0
<Window: 16 > X:[ -17 , -14 ] Y:[ -9 , -6 ]
Found Entropy: 0
\langle \text{Window}: 17 > X:[-17, -14] Y:[-6, -3]
Found Entropy: 0
<Window: 18 > X:[ -17 , -14 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 19 > X:[ -17 , -14 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 20 > X:[ -17 , -14 ] Y:[ 3 , 6 ]
Found Entropy: 0
\{Window: 21 > X:[ -14 , -11 ] Y:[ -9 , -6 ]
Found Entropy: 0
\langle \text{Window}: 22 \rangle X: [-14, -11] Y: [-6, -3]
Found Entropy: 0
<Window: 23 > X:[ -14 , -11 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 24 > X:[ -14 , -11 ] Y:[ 0 , 3 ]
Found Entropy: 0
\langle \text{Window: } 25 \rangle X:[-14, -11] Y:[3, 6]
Found Entropy: 0
\{Window: 26 \} X: [ -11 , -8 ] Y: [ -9 , -6 ]
Found Entropy: 0
\langle \text{Window: } 27 \rangle \text{ X: [ } -11 \text{ , } -8 \text{ ] } \text{ Y: [ } -6 \text{ , } -3 \text{ ]}
Found Entropy: 0
\langle \text{Window: 28} \rangle X:[-11, -8] Y:[-3, 0]
Found Entropy: 0
<Window: 29 > X:[ -11 , -8 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 30 > X:[ -11 , -8 ] Y:[ 3 , 6 ]
Found Entropy: 0
\langle \text{Window}: 31 \rangle X: [-8, -5] Y: [-9, -6]
Found Entropy: 0
\langle \text{Window}: 32 \rangle X: [-8, -5] Y: [-6, -3]
Found Entropy: 0
<Window: 33 > X:[ -8 , -5 ] Y:[ -3 , 0 ]
```

```
Found Entropy: 0
<Window: 34 > X:[ -8 , -5 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 35 > X:[ -8 , -5 ] Y:[ 3 , 6 ]
Found Entropy: 0
\forall Window: 36 > X:[-5, -2] Y:[-9, -6]
Found Entropy: 0
\langle \text{Window}: 37 \rangle X: [-5, -2] Y: [-6, -3]
Found Entropy: 0
\langle \text{Window}: 38 > X: [-5, -2] Y: [-3, 0]
Found Entropy: 0
<Window: 39 > X:[ -5 , -2 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 40 > X:[ -5 , -2 ] Y:[ 3 , 6 ]
Found Entropy: 0
\{\text{Window: } 41 > X:[-2,1] \ Y:[-9,-6]
Found Entropy: 0
\{\text{Window: } 42 > X:[-2,1] \ Y:[-6,-3]
Found Entropy: 0
\{\text{Window: } 43 > X: [-2, 1] Y: [-3, 0]
Found Entropy: 0
<Window: 44 > X:[ -2 , 1 ] Y:[ 0 , 3 ]
Found Entropy: 0
\{\text{Window: } 45 > X: [-2, 1] Y: [3, 6]
Found Entropy: 0
<Window: 46 > X:[1, 4] Y:[-9, -6]
Found Entropy: 0
<Window: 47 > X:[1, 4] Y:[-6, -3]
Found Entropy: 0
<Window: 48 > X:[1,4] Y:[-3,0]
Found Entropy: 0
<Window: 49 > X:[1, 4] Y:[0, 3]
Found Entropy: 0
<Window: 50 > X:[1, 4] Y:[3, 6]
Found Entropy: 0
\{Window: 51 > X:[4,7] Y:[-9,-6]
Found Entropy: 0
\{\text{Window}: 52 > X: [4, 7] Y: [-6, -3]
Found Entropy: 0
\{\text{Window: 53} > X: [4, 7] Y: [-3, 0]
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.410116318288409
```

```
<Window: 54 > X:[4,7] Y:[0,3]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 55 > X:[4,7] Y:[3,6]
Found Entropy: 0
\{\text{Window: } 56 > X: [7, 10] Y: [-9, -6]
Found Entropy: 0
\{Window: 57 > X:[7, 10] Y:[-6, -3]
Found Entropy: 0
<Window: 58 > X:[ 7 , 10 ] Y:[ -3 , 0 ]
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.410116318288409
<Window: 59 > X:[ 7 , 10 ] Y:[ 0 , 3 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 60 > X:[ 7 , 10 ] Y:[ 3 , 6 ]
Found Entropy: 0
<Window: 61 > X:[ 10 , 13 ] Y:[ -9 , -6 ]
Found Entropy: 0
\{\text{Window: } 62 > X: [10, 13] Y: [-6, -3]
Found Entropy: 0
\langle Window: 63 \rangle X: [10, 13] Y: [-3, 0]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 64 > X:[ 10 , 13 ] Y:[ 0 , 3 ]
Found a sample of class: 2
```

```
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.7774621319109287
<Window: 65 > X:[ 10 , 13 ] Y:[ 3 , 6 ]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.5623351446188083
<Window: 66 > X:[ 13 , 16 ] Y:[ -9 , -6 ]
Found Entropy: 0
<Window: 67 > X:[ 13 , 16 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 68 > X:[ 13 , 16 ] Y:[ -3 , 0 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 69 > X:[ 13 , 16 ] Y:[ 0 , 3 ]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.5297061990576545
<Window: 70 > X:[ 13 , 16 ] Y:[ 3 , 6 ]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
```

```
Found Entropy: 0.6365141682948128
<Window: 71 > X:[ 16 , 19 ] Y:[ -9 , -6 ]
Found Entropy: 0
\{Window: 72 > X:[ 16 , 19 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 73 > X:[ 16 , 19 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 74 > X:[16, 19] Y:[0, 3]
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.30463609734923813
<Window: 75 > X:[ 16 , 19 ] Y:[ 3 , 6 ]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.639031859650177
<Window: 76 > X:[ 19 , 22 ] Y:[ -9 , -6 ]
Found Entropy: 0
\langle \text{Window}: 77 \rangle X: [19, 22] Y: [-6, -3]
Found Entropy: 0
\{\text{Window: 78} > \text{X:[19,22]} \text{Y:[-3,0]}
Found Entropy: 0
<Window: 79 > X:[ 19 , 22 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 80 > X:[ 19 , 22 ] Y:[ 3 , 6 ]
Found a sample of class: 2
```

```
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
Total Count: 80
Expected Count: 80
OKAY: True
----Done--- 5.906832364815045
Done!
-26 21 -9 5
You Can use this matrix now.
X_{min} = -26
X_max = 22
Y_min = -9
Y_{max} = 6
And the Matrix Shape: 48 * 15
\{Window: 1 > X:[ -26 , -23 ] Y:[ -9 , -6 ]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 0.42584844923858145
<Window: 2 > X:[ -26 , -23 ] Y:[ -6 , -3 ]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
<Window: 3 > X:[ -26 , -23 ] Y:[ -3 , 0 ]
Found Entropy: 0
\{\text{Window}: 4 > X: [-26, -23] Y: [0, 3]
Found Entropy: 0
<Window: 5 > X:[ -26 , -23 ] Y:[ 3 , 6 ]
Found Entropy: 0
\langle \text{Window: 6} \rangle \text{ X:[-23,-20] Y:[-9,-6]}
Found a sample of class: 1
Found a sample of class: 1
```

```
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 0.5763341277567499
\{Window: 7 > X:[ -23 , -20 ] Y:[ -6 , -3 ]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.5623351446188083
\langle \text{Window: 8 > X:[-23,-20] Y:[-3,0]}
Found Entropy: 0
<Window: 9 > X:[ -23 , -20 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 10 > X:[ -23 , -20 ] Y:[ 3 , 6 ]
Found Entropy: 0
\{\text{Window: } 11 > X:[-20, -17] \ Y:[-9, -6] \}
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 0.6365141682948128
\{Window: 12 > X:[ -20 , -17 ] Y:[ -6 , -3 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 13 > X:[ -20 , -17 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 14 > X:[ -20 , -17 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 15 > X:[ -20 , -17 ] Y:[ 3 , 6 ]
Found Entropy: 0
<Window: 16 > X:[ -17 , -14 ] Y:[ -9 , -6 ]
```

```
Found Entropy: 0
<Window: 17 > X:[ -17 , -14 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 18 > X:[ -17 , -14 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 19 > X:[ -17 , -14 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 20 > X:[ -17 , -14 ] Y:[ 3 , 6 ]
Found Entropy: 0
<Window: 21 > X:[ -14 , -11 ] Y:[ -9 , -6 ]
Found Entropy: 0
\langle \text{Window}: 22 \rangle X: [-14, -11] Y: [-6, -3]
Found Entropy: 0
<Window: 23 > X:[ -14 , -11 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 24 > X:[ -14 , -11 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 25 > X:[ -14 , -11 ] Y:[ 3 , 6 ]
Found Entropy: 0
\{Window: 26 \} X: [ -11 , -8 ] Y: [ -9 , -6 ]
Found Entropy: 0
\langle \text{Window: } 27 \rangle \text{ X: [ } -11 \text{ , } -8 \text{ ] } \text{ Y: [ } -6 \text{ , } -3 \text{ ]}
Found Entropy: 0
<Window: 28 > X:[-11, -8] Y:[-3, 0]
Found Entropy: 0
\langle Window: 29 \rangle X: [-11, -8] Y: [0, 3]
Found Entropy: 0
<Window: 30 > X:[ -11 , -8 ] Y:[ 3 , 6 ]
Found Entropy: 0
\forall X: [-8, -5] Y: [-9, -6]
Found Entropy: 0
\langle \text{Window}: 32 \rangle X: [-8, -5] Y: [-6, -3]
Found Entropy: 0
<Window: 33 > X:[ -8 , -5 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 34 > X:[ -8 , -5 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 35 > X:[ -8 , -5 ] Y:[ 3 , 6 ]
Found Entropy: 0
\langle \text{Window}: 36 \rangle X: [-5, -2] Y: [-9, -6]
Found Entropy: 0
<Window: 37 > X:[-5, -2] Y:[-6, -3]
Found Entropy: 0
<Window: 38 > X:[ -5 , -2 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 39 > X:[ -5 , -2 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 40 > X:[ -5 , -2 ] Y:[ 3 , 6 ]
```

```
Found Entropy: 0
<Window: 41 > X:[-2, 1] Y:[-9, -6]
Found Entropy: 0
\{\text{Window: } 42 > X:[-2,1] \ Y:[-6,-3]
Found Entropy: 0
<Window: 43 > X:[-2, 1] Y:[-3, 0]
Found Entropy: 0
<Window: 44 > X:[ -2 , 1 ] Y:[ 0 , 3 ]
Found Entropy: 0
\langle Window: 45 \rangle X: [-2, 1] Y: [3, 6]
Found Entropy: 0
<Window: 46 > X:[1, 4] Y:[-9, -6]
Found Entropy: 0
<Window: 47 > X:[1, 4] Y:[-6, -3]
Found Entropy: 0
<Window: 48 > X:[1,4] Y:[-3,0]
Found Entropy: 0
<Window: 49 > X:[1, 4] Y:[0, 3]
Found Entropy: 0
<Window: 50 > X:[1, 4] Y:[3, 6]
Found Entropy: 0
<Window: 51 > X:[ 4 , 7 ] Y:[ -9 , -6 ]
Found Entropy: 0
\{\text{Window}: 52 > X: [4, 7] Y: [-6, -3]
Found Entropy: 0
\{\text{Window}: 53 > X: [4, 7] Y: [-3, 0]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.9556998911125343
\{\text{Window}: 54 > X: [4, 7] Y: [0, 3]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 55 > X:[ 4 , 7 ] Y:[ 3 , 6 ]
Found Entropy: 0
<Window: 56 > X:[7, 10] Y:[-9, -6]
Found Entropy: 0
<Window: 57 > X:[7, 10] Y:[-6, -3]
Found Entropy: 0
```

```
<Window: 58 > X:[ 7 , 10 ] Y:[ -3 , 0 ]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 0.7963116401738131
<Window: 59 > X:[ 7 , 10 ] Y:[ 0 , 3 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 60 > X:[ 7 , 10 ] Y:[ 3 , 6 ]
Found Entropy: 0
<Window: 61 > X:[ 10 , 13 ] Y:[ -9 , -6 ]
Found Entropy: 0
\{\text{Window: } 62 > X: [10, 13] Y: [-6, -3]
Found Entropy: 0
<Window: 63 > X:[ 10 , 13 ] Y:[ -3 , 0 ]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 64 > X:[ 10 , 13 ] Y:[ 0 , 3 ]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
```

```
Found a sample of class: 2
Found Entropy: 0.8647400965276372
<Window: 65 > X:[ 10 , 13 ] Y:[ 3 , 6 ]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.5623351446188083
<Window: 66 > X:[ 13 , 16 ] Y:[ -9 , -6 ]
Found Entropy: 0
<Window: 67 > X:[ 13 , 16 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 68 > X:[ 13 , 16 ] Y:[ -3 , 0 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 69 > X:[ 13 , 16 ] Y:[ 0 , 3 ]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.5297061990576545
<Window: 70 > X:[ 13 , 16 ] Y:[ 3 , 6 ]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.6365141682948128
\{\text{Window: 71} > \text{X:[16,19]} \text{Y:[-9,-6]}
Found Entropy: 0
\{\text{Window: 72} > \text{X:[16,19]} \text{Y:[-6,-3]}
Found Entropy: 0
<Window: 73 > X:[ 16 , 19 ] Y:[ -3 , 0 ]
Found Entropy: 0
\forall \text{Window: } 74 > X:[16,19] Y:[0,3]
Found a sample of class: 1
Found a sample of class: 2
```

```
Found a sample of class: 2
Found Entropy: 0.30463609734923813
<Window: 75 > X:[ 16 , 19 ] Y:[ 3 , 6 ]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.8018185525433373
\{\text{Window: 76} > \text{X:[19,22]} \text{Y:[-9,-6]}
Found Entropy: 0
\langle \text{Window}: 77 \rangle X: [19, 22] Y: [-6, -3]
Found Entropy: 0
<Window: 78 > X:[ 19 , 22 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 79 > X:[ 19 , 22 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 80 > X:[ 19 , 22 ] Y:[ 3 , 6 ]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.8486855577264172
Total Count: 80
Expected Count: 80
OKAY: True
----Done---- 8.501479237313205
Done!
-26 21 -9 5
You Can use this matrix now.
X_{min} = -26
X_max = 22
Y_{min} = -9
Y_max=6
```

```
And the Matrix Shape: 48 * 15
\{\text{Window: 1 > X:[-26,-23] Y:[-9,-6]}
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 0.5297061990576545
\{Window: 2 > X:[ -26 , -23 ] Y:[ -6 , -3 ]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\{\text{Window: 3 > X:[-26,-23] Y:[-3,0]}
Found Entropy: 0
<Window: 4 > X:[ -26 , -23 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 5 > X:[ -26 , -23 ] Y:[ 3 , 6 ]
Found Entropy: 0
\{\text{Window: 6} > X: [-23, -20] Y: [-9, -6]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 0
```

```
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.9097077103274986
\langle \text{Window}: 7 \rangle X: [-23, -20] Y: [-6, -3]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.5623351446188083
\langle \text{Window}: 8 \rangle X: [-23, -20] Y: [-3, 0]
Found Entropy: 0
\langle \text{Window: 9} \rangle X: [-23, -20] Y: [0, 3]
Found Entropy: 0
<Window: 10 > X:[ -23 , -20 ] Y:[ 3 , 6 ]
Found Entropy: 0
\{\text{Window: } 11 > \text{X:} [-20, -17] \text{ Y:} [-9, -6] \}
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 1.0114042647073516
\langle \text{Window: } 12 \rangle \text{ X: [} -20 , -17 ] \text{ Y: [} -6 , -3 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 13 > X:[ -20 , -17 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 14 > X:[ -20 , -17 ] Y:[ 0 , 3 ]
Found Entropy: 0
\langle \text{Window: } 15 \rangle X:[-20, -17] Y:[3, 6]
Found Entropy: 0
<Window: 16 > X:[ -17 , -14 ] Y:[ -9 , -6 ]
Found Entropy: 0
\langle \text{Window}: 17 > X: [-17, -14] Y: [-6, -3]
Found Entropy: 0
\langle \text{Window: } 18 > \text{X:} [ -17 , -14 ] \text{ Y:} [ -3 , 0 ]
Found Entropy: 0
<Window: 19 > X:[ -17 , -14 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 20 > X:[ -17 , -14 ] Y:[ 3 , 6 ]
Found Entropy: 0
\langle \text{Window}: 21 \rangle X: [-14, -11] Y: [-9, -6]
Found Entropy: 0
\langle \text{Window}: 22 \rangle X: [-14, -11] Y: [-6, -3]
Found Entropy: 0
\langle \text{Window: } 23 \rangle \text{ X: [ } -14 \text{ , } -11 \text{ ] } \text{ Y: [ } -3 \text{ , } 0 \text{ ]}
```

```
Found Entropy: 0
<Window: 24 > X:[ -14 , -11 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 25 > X:[-14, -11] Y:[3, 6]
Found Entropy: 0
\{Window: 26 \} X: [ -11 , -8 ] Y: [ -9 , -6 ]
Found Entropy: 0
\langle \text{Window: } 27 \rangle \text{ X: [ } -11 \text{ , } -8 \text{ ] } \text{ Y: [ } -6 \text{ , } -3 \text{ ]}
Found Entropy: 0
<Window: 28 > X:[-11, -8] Y:[-3, 0]
Found Entropy: 0
<Window: 29 > X:[ -11 , -8 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 30 > X:[ -11 , -8 ] Y:[ 3 , 6 ]
Found Entropy: 0
<Window: 31 > X:[ -8 , -5 ] Y:[ -9 , -6 ]
Found Entropy: 0
\langle \text{Window}: 32 \rangle X: [-8, -5] Y: [-6, -3]
Found Entropy: 0
\langle \text{Window}: 33 \rangle X: [-8, -5] Y: [-3, 0]
Found Entropy: 0
<Window: 34 > X:[ -8 , -5 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 35 > X:[ -8 , -5 ] Y:[ 3 , 6 ]
Found Entropy: 0
\{Window: 36 > X: [-5, -2] Y: [-9, -6] \}
Found Entropy: 0
\langle \text{Window}: 37 \rangle X: [-5, -2] Y: [-6, -3]
Found Entropy: 0
<Window: 38 > X:[ -5 , -2 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 39 > X:[ -5 , -2 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 40 > X:[-5, -2] Y:[3, 6]
Found Entropy: 0
\{\text{Window: } 41 > X:[-2,1] \ Y:[-9,-6]
Found Entropy: 0
\langle \text{Window}: 42 \rangle X: [-2, 1] Y: [-6, -3]
Found Entropy: 0
<Window: 43 > X:[ -2 , 1 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 44 > X:[ -2 , 1 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 45 > X:[ -2 , 1 ] Y:[ 3 , 6 ]
Found Entropy: 0
<Window: 46 > X:[1, 4] Y:[-9, -6]
Found Entropy: 0
<Window: 47 > X:[ 1 , 4 ] Y:[ -6 , -3 ]
```

```
Found Entropy: 0
<Window: 48 > X:[1,4] Y:[-3,0]
Found Entropy: 0
<Window: 49 > X:[1, 4] Y:[0, 3]
Found Entropy: 0
<Window: 50 > X:[1, 4] Y:[3, 6]
Found Entropy: 0
<Window: 51 > X:[ 4 , 7 ] Y:[ -9 , -6 ]
Found Entropy: 0
\{\text{Window}: 52 > X: [4, 7] Y: [-6, -3]
Found Entropy: 0
\{\text{Window}: 53 > X: [4, 7] Y: [-3, 0]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 1.0789922078775833
<Window: 54 > X:[4,7] Y:[0,3]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.8675632284814612
<Window: 55 > X:[4,7] Y:[3,6]
Found Entropy: 0
<Window: 56 > X:[ 7 , 10 ] Y:[ -9 , -6 ]
Found Entropy: 0
<Window: 57 > X:[ 7 , 10 ] Y:[ -6 , -3 ]
Found Entropy: 0
\langle Window: 58 \rangle X: [7, 10] Y: [-3, 0]
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.410116318288409
<Window: 59 > X:[7, 10] Y:[0, 3]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
```

```
Found a sample of class: 1
Found Entropy: 0.3250829733914482
<Window: 60 > X:[ 7 , 10 ] Y:[ 3 , 6 ]
Found Entropy: 0
<Window: 61 > X:[ 10 , 13 ] Y:[ -9 , -6 ]
Found Entropy: 0
<Window: 62 > X:[ 10 , 13 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 63 > X:[ 10 , 13 ] Y:[ -3 , 0 ]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 64 > X:[10, 13] Y:[0, 3]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.9743147528693494
<Window: 65 > X:[ 10 , 13 ] Y:[ 3 , 6 ]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 1.0397207708399179
<Window: 66 > X:[ 13 , 16 ] Y:[ -9 , -6 ]
Found Entropy: 0
```

```
<Window: 67 > X:[ 13 , 16 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 68 > X:[ 13 , 16 ] Y:[ -3 , 0 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 69 > X:[ 13 , 16 ] Y:[ 0 , 3 ]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6869615765973234
<Window: 70 > X:[ 13 , 16 ] Y:[ 3 , 6 ]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.6365141682948128
\{\text{Window: 71} > \text{X:[16,19]} \text{Y:[-9,-6]}
Found Entropy: 0
\{\text{Window: 72} > \text{X:[16,19]} \text{Y:[-6,-3]}
Found Entropy: 0
\{\text{Window}: 73 > X: [16, 19] Y: [-3, 0]
Found Entropy: 0
<Window: 74 > X:[16, 19] Y:[0, 3]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6001660731596457
<Window: 75 > X:[ 16 , 19 ] Y:[ 3 , 6 ]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
```

```
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.6108643020548935
\langle \text{Window}: 76 \rangle X: [19, 22] Y: [-9, -6]
Found Entropy: 0
\langle \text{Window}: 77 \rangle X: [19, 22] Y: [-6, -3]
Found Entropy: 0
\{\text{Window: 78} > \text{X:[19,22]} \text{Y:[-3,0]}
Found Entropy: 0
\forall \text{Window: } 79 > X:[19, 22] Y:[0, 3]
Found Entropy: 0
\{\text{Window}: 80 > X: [19, 22] Y: [3, 6]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.6365141682948128
Total Count: 80
Expected Count: 80
OKAY: True
----Done--- 10.879963858860972
Done!
-26 21 -9 5
You Can use this matrix now.
X_{min} = -26
X_max = 22
Y_min = -9
Y \max = 6
And the Matrix Shape: 48 * 15
\{\text{Window: 1 > X:[-26,-23] Y:[-9,-6]}
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
```

```
Found a sample of class: 0
Found Entropy: 1.0114042647073516
\langle \text{Window: 2} \rangle \text{ X:[-26,-23] Y:[-6,-3]}
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
<Window: 3 > X:[ -26 , -23 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 4 > X:[ -26 , -23 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 5 > X:[ -26 , -23 ] Y:[ 3 , 6 ]
Found Entropy: 0
\{\text{Window: 6} > X: [-23, -20] Y: [-9, -6]\}
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 0.8785250991271565
\{Window: 7 > X:[ -23 , -20 ] Y:[ -6 , -3 ]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.5623351446188083
<Window: 8 > X:[ -23 , -20 ] Y:[ -3 , 0 ]
Found Entropy: 0
\langle \text{Window: 9} \rangle X: [-23, -20] Y: [0, 3]
Found Entropy: 0
```

```
<Window: 10 > X:[ -23 , -20 ] Y:[ 3 , 6 ]
Found Entropy: 0
\langle \text{Window}: 11 > X:[-20, -17] Y:[-9, -6]
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 1.0114042647073518
\{\text{Window: } 12 > \text{X:} [-20, -17] \text{ Y:} [-6, -3] \}
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 13 \rangle X: [-20, -17] Y: [-3, 0]
Found Entropy: 0
<Window: 14 > X:[ -20 , -17 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 15 > X:[ -20 , -17 ] Y:[ 3 , 6 ]
Found Entropy: 0
<Window: 16 > X:[ -17 , -14 ] Y:[ -9 , -6 ]
Found Entropy: 0
\langle \text{Window}: 17 > X: [-17, -14] Y: [-6, -3]
Found Entropy: 0
<Window: 18 > X:[ -17 , -14 ] Y:[ -3 , 0 ]
Found Entropy: 0
\langle \text{Window}: 19 \rangle X: [-17, -14] Y: [0, 3]
Found Entropy: 0
<Window: 20 > X:[ -17 , -14 ] Y:[ 3 , 6 ]
Found Entropy: 0
\forall X: [-14, -11] \ Y: [-9, -6]
Found Entropy: 0
\langle \text{Window}: 22 \rangle X: [-14, -11] Y: [-6, -3]
Found Entropy: 0
<Window: 23 > X:[ -14 , -11 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 24 > X:[ -14 , -11 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 25 > X:[ -14 , -11 ] Y:[ 3 , 6 ]
Found Entropy: 0
<Window: 26 > X:[ -11 , -8 ] Y:[ -9 , -6 ]
Found Entropy: 0
\langle \text{Window}: 27 \rangle X: [-11, -8] Y: [-6, -3]
Found Entropy: 0
<Window: 28 > X:[-11, -8] Y:[-3, 0]
Found Entropy: 0
<Window: 29 > X:[ -11 , -8 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 30 > X:[ -11 , -8 ] Y:[ 3 , 6 ]
```

```
Found Entropy: 0
\forall X: [-8, -5] Y: [-9, -6]
Found Entropy: 0
\{\text{Window: } 32 > \text{X:} [-8, -5] \text{ Y:} [-6, -3] \}
Found Entropy: 0
<Window: 33 > X:[ -8 , -5 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 34 > X:[ -8 , -5 ] Y:[ 0 , 3 ]
Found Entropy: 0
\langle \text{Window}: 35 \rangle X: [-8, -5] Y: [3, 6]
Found Entropy: 0
<Window: 36 > X:[ -5 , -2 ] Y:[ -9 , -6 ]
Found Entropy: 0
\langle \text{Window}: 37 \rangle X: [-5, -2] Y: [-6, -3]
Found Entropy: 0
<Window: 38 > X:[ -5 , -2 ] Y:[ -3 , 0 ]
Found Entropy: 0
\langle \text{Window}: 39 \rangle X: [-5, -2] Y: [0, 3]
Found Entropy: 0
\langle \text{Window}: 40 \rangle X: [-5, -2] Y: [3, 6]
Found Entropy: 0
\{\text{Window: } 41 > X:[-2,1] \ Y:[-9,-6]
Found Entropy: 0
\{\text{Window: } 42 > X:[-2,1] \ Y:[-6,-3]
Found Entropy: 0
\{\text{Window}: 43 > X: [-2, 1] Y: [-3, 0]
Found Entropy: 0
<Window: 44 > X:[ -2 , 1 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 45 > X:[ -2 , 1 ] Y:[ 3 , 6 ]
Found Entropy: 0
<Window: 46 > X:[1, 4] Y:[-9, -6]
Found Entropy: 0
\{\text{Window}: 47 > X: [1, 4] Y: [-6, -3]
Found Entropy: 0
<Window: 48 > X:[1, 4] Y:[-3, 0]
Found Entropy: 0
<Window: 49 > X:[ 1 , 4 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 50 > X:[ 1 , 4 ] Y:[ 3 , 6 ]
Found Entropy: 0
\langle Window: 51 \rangle X: [4, 7] Y: [-9, -6]
Found Entropy: 0
<Window: 52 > X:[ 4 , 7 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 53 > X:[4,7] Y:[-3,0]
Found a sample of class: 0
Found a sample of class: 2
```

```
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 1.0789922078775833
<Window: 54 > X:[4,7] Y:[0,3]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 1.0114042647073518
<Window: 55 > X:[ 4 , 7 ] Y:[ 3 , 6 ]
Found Entropy: 0
<Window: 56 > X:[7, 10] Y:[-9, -6]
Found Entropy: 0
<Window: 57 > X:[ 7 , 10 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 58 > X:[ 7 , 10 ] Y:[ -3 , 0 ]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.7963116401738131
<Window: 59 > X:[ 7 , 10 ] Y:[ 0 , 3 ]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.8018185525433372
<Window: 60 > X:[ 7 , 10 ] Y:[ 3 , 6 ]
Found Entropy: 0
<Window: 61 > X:[ 10 , 13 ] Y:[ -9 , -6 ]
Found Entropy: 0
<Window: 62 > X:[ 10 , 13 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 63 > X:[ 10 , 13 ] Y:[ -3 , 0 ]
```

```
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.6365141682948128
\{\text{Window}: 64 > X: [10, 13] Y: [0, 3]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.8815322611881636
<Window: 65 > X:[ 10 , 13 ] Y:[ 3 , 6 ]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 1.0821955300387671
<Window: 66 > X:[ 13 , 16 ] Y:[ -9 , -6 ]
Found Entropy: 0
<Window: 67 > X:[ 13 , 16 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 68 > X:[ 13 , 16 ] Y:[ -3 , 0 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 69 > X:[ 13 , 16 ] Y:[ 0 , 3 ]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
```

```
Found a sample of class: 2
Found Entropy: 1.0608569471580214
<Window: 70 > X:[ 13 , 16 ] Y:[ 3 , 6 ]
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.6365141682948128
<Window: 71 > X:[ 16 , 19 ] Y:[ -9 , -6 ]
Found Entropy: 0
\{\text{Window: 72} > \text{X:[16,19]} \text{Y:[-6,-3]}
Found Entropy: 0
\langle Window: 73 \rangle X: [16, 19] Y: [-3, 0]
Found Entropy: 0
<Window: 74 > X:[ 16 , 19 ] Y:[ 0 , 3 ]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.7595473914748635
<Window: 75 > X:[ 16 , 19 ] Y:[ 3 , 6 ]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.8979457248567797
\{\text{Window}: 76 > X: [19, 22] Y: [-9, -6]
Found Entropy: 0
<Window: 77 > X:[ 19 , 22 ] Y:[ -6 , -3 ]
Found Entropy: 0
\langle \text{Window: 78} \rangle \text{ X:[ 19, 22] Y:[ -3, 0]}
Found Entropy: 0
<Window: 79 > X:[19, 22] Y:[0, 3]
Found Entropy: 0
<Window: 80 > X:[ 19 , 22 ] Y:[ 3 , 6 ]
Found a sample of class: 1
```

```
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 1.0608569471580214
Total Count: 80
Expected Count: 80
OKAY: True
----Done--- 14.168158576926993
Done!
-26 21 -9 5
You Can use this matrix now.
X_{min} = -26
X_max = 22
Y min=-9
Y \max = 6
And the Matrix Shape: 48 * 15
\{Window: 1 > X:[ -26 , -23 ] Y:[ -9 , -6 ]
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 1.0893096789558299
\langle \text{Window}: 2 \rangle X: [-26, -23] Y: [-6, -3]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
<Window: 3 > X:[ -26 , -23 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 4 > X:[ -26 , -23 ] Y:[ 0 , 3 ]
```

```
Found Entropy: 0
<Window: 5 > X:[ -26 , -23 ] Y:[ 3 , 6 ]
Found Entropy: 0
\{Window: 6 > X:[ -23 , -20 ] Y:[ -9 , -6 ]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 1.0171643509248343
\langle \text{Window}: 7 > X: [-23, -20] Y: [-6, -3]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.6931471805599453
<Window: 8 > X:[ -23 , -20 ] Y:[ -3 , 0 ]
Found Entropy: 0
\langle \text{Window: 9} \rangle X: [-23, -20] Y: [0, 3]
Found Entropy: 0
\{Window: 10 > X:[ -23 , -20 ] Y:[ 3 , 6 ]
Found Entropy: 0
\{Window: 11 > X:[ -20 , -17 ] Y:[ -9 , -6 ]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.6931471805599453
\langle \text{Window}: 12 \rangle X: [-20, -17] Y: [-6, -3]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 13 > X:[ -20 , -17 ] Y:[ -3 , 0 ]
```

```
Found Entropy: 0
<Window: 14 > X:[ -20 , -17 ] Y:[ 0 , 3 ]
Found Entropy: 0
\{\text{Window: } 15 > X: [-20, -17] \ Y: [3, 6]
Found Entropy: 0
<Window: 16 > X:[ -17 , -14 ] Y:[ -9 , -6 ]
Found Entropy: 0
\langle \text{Window}: 17 > X: [-17, -14] Y: [-6, -3]
Found Entropy: 0
\langle \text{Window}: 18 \rangle X: [-17, -14] Y: [-3, 0]
Found Entropy: 0
<Window: 19 > X:[ -17 , -14 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 20 > X:[ -17 , -14 ] Y:[ 3 , 6 ]
Found Entropy: 0
\langle \text{Window}: 21 \rangle X: [-14, -11] Y: [-9, -6]
Found Entropy: 0
\langle \text{Window}: 22 \rangle X: [-14, -11] Y: [-6, -3]
Found Entropy: 0
\langle \text{Window}: 23 \rangle X: [-14, -11] Y: [-3, 0]
Found Entropy: 0
<Window: 24 > X:[ -14 , -11 ] Y:[ 0 , 3 ]
Found Entropy: 0
\{\text{Window: } 25 > X: [-14, -11] \ Y: [3, 6]
Found Entropy: 0
\langle \text{Window}: 26 \rangle X: [-11, -8] Y: [-9, -6]
Found Entropy: 0
\langle \text{Window: } 27 \rangle \text{ X: [ } -11 \text{ , } -8 \text{ ] } \text{ Y: [ } -6 \text{ , } -3 \text{ ]}
Found Entropy: 0
\langle \text{Window: 28} \rangle X: [-11, -8] Y: [-3, 0]
Found Entropy: 0
<Window: 29 > X:[ -11 , -8 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 30 > X:[ -11 , -8 ] Y:[ 3 , 6 ]
Found Entropy: 0
\langle \text{Window: } 31 \rangle \text{ X:[} -8 , -5 ] \text{ Y:[} -9 , -6 ]
Found Entropy: 0
\langle \text{Window: } 32 \rangle \text{ X:[} -8 , -5 ] \text{ Y:[} -6 , -3 ]
Found Entropy: 0
<Window: 33 > X:[ -8 , -5 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 34 > X:[-8, -5] Y:[0, 3]
Found Entropy: 0
<Window: 35 > X:[ -8 , -5 ] Y:[ 3 , 6 ]
Found Entropy: 0
<Window: 36 > X:[ -5 , -2 ] Y:[ -9 , -6 ]
Found Entropy: 0
\langle \text{Window}: 37 \rangle X: [-5, -2] Y: [-6, -3]
```

```
Found Entropy: 0
<Window: 38 > X:[-5, -2] Y:[-3, 0]
Found Entropy: 0
<Window: 39 > X:[ -5 , -2 ] Y:[ 0 , 3 ]
Found Entropy: 0
\{\text{Window}: 40 > X: [-5, -2] Y: [3, 6]
Found Entropy: 0
\{\text{Window: } 41 > X:[-2,1] \ Y:[-9,-6]
Found Entropy: 0
\langle \text{Window}: 42 \rangle X: [-2, 1] Y: [-6, -3]
Found Entropy: 0
<Window: 43 > X:[ -2 , 1 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 44 > X:[ -2 , 1 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 45 > X:[-2, 1] Y:[3, 6]
Found Entropy: 0
\{\text{Window}: 46 > X: [1, 4] Y: [-9, -6]
Found Entropy: 0
\{\text{Window}: 47 > X: [1, 4] Y: [-6, -3]
Found Entropy: 0
<Window: 48 > X:[1, 4] Y:[-3, 0]
Found Entropy: 0
<Window: 49 > X:[1, 4] Y:[0, 3]
Found Entropy: 0
<Window: 50 > X:[ 1 , 4 ] Y:[ 3 , 6 ]
Found Entropy: 0
\{Window: 51 > X:[4,7] Y:[-9,-6]
Found Entropy: 0
\{Window: 52 > X:[4,7] Y:[-6,-3]
Found Entropy: 0
<Window: 53 > X:[4,7] Y:[-3,0]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 1.0042424730540764
<Window: 54 > X:[4,7] Y:[0,3]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.6931471805599453
```

```
<Window: 55 > X:[4,7] Y:[3,6]
Found Entropy: 0
<Window: 56 > X:[7, 10] Y:[-9, -6]
Found Entropy: 0
<Window: 57 > X:[ 7 , 10 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 58 > X:[ 7 , 10 ] Y:[ -3 , 0 ]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.5982695885852573
<Window: 59 > X:[ 7 , 10 ] Y:[ 0 , 3 ]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.9502705392332347
<Window: 60 > X:[ 7 , 10 ] Y:[ 3 , 6 ]
Found Entropy: 0
<Window: 61 > X:[ 10 , 13 ] Y:[ -9 , -6 ]
Found Entropy: 0
<Window: 62 > X:[ 10 , 13 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 63 > X:[ 10 , 13 ] Y:[ -3 , 0 ]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.6365141682948128
<Window: 64 > X:[10, 13] Y:[0, 3]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 1
```

```
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 1.0239287996389363
<Window: 65 > X:[ 10 , 13 ] Y:[ 3 , 6 ]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 1.0397207708399179
<Window: 66 > X:[13, 16] Y:[-9, -6]
Found Entropy: 0
<Window: 67 > X:[ 13 , 16 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 68 > X:[ 13 , 16 ] Y:[ -3 , 0 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 69 > X:[ 13 , 16 ] Y:[ 0 , 3 ]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.9649629230074277
<Window: 70 > X:[ 13 , 16 ] Y:[ 3 , 6 ]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.6365141682948128
<Window: 71 > X:[ 16 , 19 ] Y:[ -9 , -6 ]
Found Entropy: 0
\langle \text{Window}: 72 \rangle X: [16, 19] Y: [-6, -3]
Found Entropy: 0
<Window: 73 > X:[ 16 , 19 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 74 > X:[16, 19] Y:[0, 3]
```

```
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.8599672810355049
\forall X: [16, 19] Y: [3, 6]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 1.0296530140645737
\{\text{Window: 76} > \text{X:[19,22]} \text{Y:[-9,-6]}
Found Entropy: 0
\langle \text{Window}: 77 \rangle X: [19, 22] Y: [-6, -3]
Found Entropy: 0
\langle \text{Window: 78} \rangle \text{ X:[ 19, 22] Y:[ -3, 0]}
Found Entropy: 0
<Window: 79 > X:[19, 22] Y:[0, 3]
Found Entropy: 0
\{\text{Window}: 80 > X: [19, 22] Y: [3, 6]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 1.0986122886681096
Total Count: 80
Expected Count: 80
OKAY: True
----Done--- 14.028571586277163
Done!
```

```
-26 21 -9 5
You Can use this matrix now.
X_{min} = -26
X_max= 22
Y min= -9
Y \max = 6
And the Matrix Shape: 48 * 15
\langle \text{Window: 1} \rangle X: [-26, -23] Y: [-9, -6]
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 1.0893096789558299
\langle \text{Window}: 2 \rangle X: [-26, -23] Y: [-6, -3]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
<Window: 3 > X:[ -26 , -23 ] Y:[ -3 , 0 ]
Found Entropy: 0
\{\text{Window: 4 > X:[-26,-23] Y:[0,3]}
Found Entropy: 0
\{\text{Window: 5} > \text{X:[-26,-23]} \text{ Y:[3,6]}
Found Entropy: 0
\{Window: 6 > X:[ -23 , -20 ] Y:[ -9 , -6 ]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
```

```
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 1.0795295733255186
\{\text{Window}: 7 > X: [-23, -20] Y: [-6, -3]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 8 > X:[ -23 , -20 ] Y:[ -3 , 0 ]
Found Entropy: 0
\langle \text{Window: 9} \rangle X: [-23, -20] Y: [0, 3]
Found Entropy: 0
\langle \text{Window}: 10 \rangle X: [-23, -20] Y: [3, 6]
Found Entropy: 0
<Window: 11 > X:[ -20 , -17 ] Y:[ -9 , -6 ]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 1.0114042647073518
<Window: 12 > X:[ -20 , -17 ] Y:[ -6 , -3 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 13 > X:[ -20 , -17 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 14 > X:[ -20 , -17 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 15 > X:[ -20 , -17 ] Y:[ 3 , 6 ]
Found Entropy: 0
\langle \text{Window}: 16 \rangle X: [-17, -14] Y: [-9, -6]
Found Entropy: 0
\{Window: 17 > X:[ -17 , -14 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 18 > X:[ -17 , -14 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 19 > X:[ -17 , -14 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 20 > X:[ -17 , -14 ] Y:[ 3 , 6 ]
```

```
Found Entropy: 0
<Window: 21 > X:[ -14 , -11 ] Y:[ -9 , -6 ]
Found Entropy: 0
\{Window: 22 > X:[ -14 , -11 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 23 > X:[ -14 , -11 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 24 > X:[ -14 , -11 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 25 > X:[ -14 , -11 ] Y:[ 3 , 6 ]
Found Entropy: 0
\langle \text{Window}: 26 \rangle X: [-11, -8] Y: [-9, -6]
Found Entropy: 0
\langle \text{Window: } 27 \rangle \text{ X: [ } -11 \text{ , } -8 \text{ ] } \text{ Y: [ } -6 \text{ , } -3 \text{ ]}
Found Entropy: 0
<Window: 28 > X:[-11, -8] Y:[-3, 0]
Found Entropy: 0
\langle Window: 29 \rangle X: [-11, -8] Y: [0, 3]
Found Entropy: 0
\langle \text{Window}: 30 \rangle X: [-11, -8] Y: [3, 6]
Found Entropy: 0
\langle \text{Window}: 31 > X: [-8, -5] Y: [-9, -6]
Found Entropy: 0
\langle \text{Window}: 32 \rangle X: [-8, -5] Y: [-6, -3]
Found Entropy: 0
\langle Window: 33 \rangle X: [-8, -5] Y: [-3, 0]
Found Entropy: 0
<Window: 34 > X:[ -8 , -5 ] Y:[ 0 , 3 ]
Found Entropy: 0
\langle \text{Window: } 35 \rangle \text{ X:[} -8 , -5 ] \text{ Y:[} 3 , 6 ]
Found Entropy: 0
<Window: 36 > X:[ -5 , -2 ] Y:[ -9 , -6 ]
Found Entropy: 0
\forall x = 1.5 \times 1.5 
Found Entropy: 0
<Window: 38 > X:[ -5 , -2 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 39 > X:[ -5 , -2 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 40 > X:[ -5 , -2 ] Y:[ 3 , 6 ]
Found Entropy: 0
\{\text{Window: } 41 > X:[-2,1] \ Y:[-9,-6]
Found Entropy: 0
\{\text{Window: } 42 > X: [-2, 1] Y: [-6, -3]
Found Entropy: 0
<Window: 43 > X:[ -2 , 1 ] Y:[ -3 , 0 ]
Found Entropy: 0
\{\text{Window: } 44 > X:[-2,1] \ Y:[0,3]
```

```
Found Entropy: 0
<Window: 45 > X:[-2, 1] Y:[3, 6]
Found Entropy: 0
<Window: 46 > X:[1, 4] Y:[-9, -6]
Found Entropy: 0
\{\text{Window}: 47 > X: [1, 4] Y: [-6, -3]
Found Entropy: 0
<Window: 48 > X:[1, 4] Y:[-3, 0]
Found Entropy: 0
<Window: 49 > X:[1, 4] Y:[0, 3]
Found Entropy: 0
<Window: 50 > X:[1,4] Y:[3,6]
Found Entropy: 0
<Window: 51 > X:[ 4 , 7 ] Y:[ -9 , -6 ]
Found Entropy: 0
\{Window: 52 > X:[ 4 , 7 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 53 > X:[ 4 , 7 ] Y:[ -3 , 0 ]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 1.0042424730540764
<Window: 54 > X:[ 4 , 7 ] Y:[ 0 , 3 ]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.6365141682948128
\langle Window: 55 \rangle X: [4, 7] Y: [3, 6]
Found Entropy: 0
<Window: 56 > X:[ 7 , 10 ] Y:[ -9 , -6 ]
Found Entropy: 0
<Window: 57 > X:[ 7 , 10 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 58 > X:[ 7 , 10 ] Y:[ -3 , 0 ]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
```

```
Found Entropy: 0.6829081047004717
<Window: 59 > X:[ 7 , 10 ] Y:[ 0 , 3 ]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.9502705392332347
<Window: 60 > X:[ 7 , 10 ] Y:[ 3 , 6 ]
Found Entropy: 0
<Window: 61 > X:[ 10 , 13 ] Y:[ -9 , -6 ]
Found Entropy: 0
<Window: 62 > X:[ 10 , 13 ] Y:[ -6 , -3 ]
Found Entropy: 0
\langle Window: 63 \rangle X: [10, 13] Y: [-3, 0]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 0.6365141682948128
<Window: 64 > X:[ 10 , 13 ] Y:[ 0 , 3 ]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 1.094780226007948
<Window: 65 > X:[ 10 , 13 ] Y:[ 3 , 6 ]
Found a sample of class: 1
Found a sample of class: 0
```

```
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.9002560512685369
<Window: 66 > X:[ 13 , 16 ] Y:[ -9 , -6 ]
Found Entropy: 0
<Window: 67 > X:[ 13 , 16 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 68 > X:[ 13 , 16 ] Y:[ -3 , 0 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 69 > X:[ 13 , 16 ] Y:[ 0 , 3 ]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.9950269901795212
<Window: 70 > X:[ 13 , 16 ] Y:[ 3 , 6 ]
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.6365141682948128
\langle \text{Window}: 71 \rangle X: [16, 19] Y: [-9, -6]
Found Entropy: 0
\forall X: [16, 19] Y: [-6, -3]
Found Entropy: 0
<Window: 73 > X:[ 16 , 19 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 74 > X:[ 16 , 19 ] Y:[ 0 , 3 ]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.9075352941050093
<Window: 75 > X:[ 16 , 19 ] Y:[ 3 , 6 ]
Found a sample of class: 0
```

```
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.9502705392332347
\{\text{Window}: 76 > X: [19, 22] Y: [-9, -6]
Found Entropy: 0
\langle \text{Window}: 77 \rangle X: [19, 22] Y: [-6, -3]
Found Entropy: 0
<Window: 78 > X:[19, 22] Y:[-3, 0]
Found Entropy: 0
<Window: 79 > X:[19, 22] Y:[0, 3]
Found Entropy: 0
<Window: 80 > X:[ 19 , 22 ] Y:[ 3 , 6 ]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 1.0608569471580214
Total Count: 80
Expected Count: 80
OKAY: True
----Done--- 14.32908036737314
Done!
-26 21 -9 5
You Can use this matrix now.
X \min = -26
X \max = 22
Y_{min} = -9
Y \max = 6
And the Matrix Shape: 48 * 15
\{\text{Window: 1 > X:[-26,-23] Y:[-9,-6]}
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
```

```
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 1.0263306332944864
\langle \text{Window}: 2 \rangle X: [-26, -23] Y: [-6, -3]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
<Window: 3 > X:[ -26 , -23 ] Y:[ -3 , 0 ]
Found Entropy: 0
\{\text{Window: 4 > X:[-26,-23] Y:[0,3]}
Found Entropy: 0
\{\text{Window: 5} > \text{X:[-26,-23]} \text{ Y:[3,6]}
Found Entropy: 0
\{Window: 6 > X:[ -23 , -20 ] Y:[ -9 , -6 ]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 1.0795295733255186
<Window: 7 > X:[ -23 , -20 ] Y:[ -6 , -3 ]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
```

```
Found a sample of class: 1
Found Entropy: 0.5623351446188083
\langle \text{Window: 8 > X:[-23,-20] Y:[-3,0]}
Found Entropy: 0
\langle \text{Window: 9} \rangle X: [-23, -20] Y: [0, 3]
Found Entropy: 0
\{\text{Window: } 10 > \text{X:} [-23, -20] \text{ Y:} [3, 6]
Found Entropy: 0
\{Window: 11 > X:[ -20 , -17 ] Y:[ -9 , -6 ]
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 1.0114042647073516
\langle \text{Window}: 12 \rangle X: [-20, -17] Y: [-6, -3]
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window: } 13 > \text{X:[} -20 , -17 ] \text{ Y:[} -3 , 0 ]
Found Entropy: 0
<Window: 14 > X:[ -20 , -17 ] Y:[ 0 , 3 ]
Found Entropy: 0
\{\text{Window: } 15 > X:[-20, -17] \ Y:[3, 6]
Found Entropy: 0
\{Window: 16 > X: [-17, -14] Y: [-9, -6]
Found Entropy: 0
\langle \text{Window}: 17 > X: [-17, -14] Y: [-6, -3]
Found Entropy: 0
<Window: 18 > X:[ -17 , -14 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 19 > X:[ -17 , -14 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 20 > X:[ -17 , -14 ] Y:[ 3 , 6 ]
Found Entropy: 0
\langle \text{Window}: 21 \rangle X: [-14, -11] Y: [-9, -6]
Found Entropy: 0
\langle \text{Window}: 22 \rangle X: [-14, -11] Y: [-6, -3]
Found Entropy: 0
\langle \text{Window: } 23 \rangle \ \text{X:[} -14 \ , -11 \ ] \ \text{Y:[} -3 \ , 0 \ ]
Found Entropy: 0
<Window: 24 > X:[ -14 , -11 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 25 > X:[ -14 , -11 ] Y:[ 3 , 6 ]
Found Entropy: 0
\langle \text{Window}: 26 \rangle X: [-11, -8] Y: [-9, -6]
Found Entropy: 0
\langle \text{Window: } 27 \rangle \text{ X: [ } -11 \text{ , } -8 \text{ ] } \text{ Y: [ } -6 \text{ , } -3 \text{ ]}
```

```
Found Entropy: 0
<Window: 28 > X:[ -11 , -8 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 29 > X:[ -11 , -8 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 30 > X:[ -11 , -8 ] Y:[ 3 , 6 ]
Found Entropy: 0
\langle \text{Window: } 31 \rangle \text{ X:[} -8 , -5 ] \text{ Y:[} -9 , -6 ]
Found Entropy: 0
\langle \text{Window}: 32 \rangle X: [-8, -5] Y: [-6, -3]
Found Entropy: 0
\langle \text{Window}: 33 \rangle X: [-8, -5] Y: [-3, 0]
Found Entropy: 0
<Window: 34 > X:[ -8 , -5 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 35 > X:[ -8 , -5 ] Y:[ 3 , 6 ]
Found Entropy: 0
\langle \text{Window}: 36 \rangle X: [-5, -2] Y: [-9, -6]
Found Entropy: 0
\langle \text{Window}: 37 \rangle X: [-5, -2] Y: [-6, -3]
Found Entropy: 0
\langle \text{Window}: 38 \rangle X: [-5, -2] Y: [-3, 0]
Found Entropy: 0
<Window: 39 > X:[ -5 , -2 ] Y:[ 0 , 3 ]
Found Entropy: 0
\{\text{Window}: 40 > X: [-5, -2] Y: [3, 6]
Found Entropy: 0
\{\text{Window: } 41 > X:[-2,1] \ Y:[-9,-6]
Found Entropy: 0
\{\text{Window: } 42 > X:[-2,1] \ Y:[-6,-3]
Found Entropy: 0
<Window: 43 > X:[ -2 , 1 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 44 > X:[-2, 1] Y:[0, 3]
Found Entropy: 0
<Window: 45 > X:[-2, 1] Y:[3, 6]
Found Entropy: 0
<Window: 46 > X:[ 1 , 4 ] Y:[ -9 , -6 ]
Found Entropy: 0
<Window: 47 > X:[ 1 , 4 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 48 > X:[1, 4] Y:[-3, 0]
Found Entropy: 0
<Window: 49 > X:[1, 4] Y:[0, 3]
Found Entropy: 0
<Window: 50 > X:[ 1 , 4 ] Y:[ 3 , 6 ]
Found Entropy: 0
<Window: 51 > X:[ 4 , 7 ] Y:[ -9 , -6 ]
```

```
Found Entropy: 0
\{Window: 52 > X:[ 4 , 7 ] Y:[ -6 , -3 ]
Found Entropy: 0
\{\text{Window: 53} > X: [4, 7] Y: [-3, 0]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 1.0042424730540764
<Window: 54 > X:[ 4 , 7 ] Y:[ 0 , 3 ]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.45056120886630463
<Window: 55 > X:[4,7] Y:[3,6]
Found Entropy: 0
<Window: 56 > X:[ 7 , 10 ] Y:[ -9 , -6 ]
Found Entropy: 0
<Window: 57 > X:[ 7 , 10 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 58 > X:[ 7 , 10 ] Y:[ -3 , 0 ]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.9556998911125343
<Window: 59 > X:[7, 10] Y:[0, 3]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 1.0296530140645737
<Window: 60 > X:[ 7 , 10 ] Y:[ 3 , 6 ]
```

```
Found Entropy: 0
<Window: 61 > X:[ 10 , 13 ] Y:[ -9 , -6 ]
Found Entropy: 0
\{\text{Window: } 62 > X: [10, 13] Y: [-6, -3]
Found Entropy: 0
<Window: 63 > X:[ 10 , 13 ] Y:[ -3 , 0 ]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
\{\text{Window}: 64 > X: [10, 13] Y: [0, 3]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 1.0821955300387673
<Window: 65 > X:[ 10 , 13 ] Y:[ 3 , 6 ]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 1.0821955300387671
<Window: 66 > X:[13, 16] Y:[-9, -6]
Found Entropy: 0
<Window: 67 > X:[ 13 , 16 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 68 > X:[ 13 , 16 ] Y:[ -3 , 0 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 69 > X:[ 13 , 16 ] Y:[ 0 , 3 ]
Found a sample of class: 0
Found a sample of class: 0
```

```
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.9950269901795212
<Window: 70 > X:[ 13 , 16 ] Y:[ 3 , 6 ]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6365141682948128
<Window: 71 > X:[ 16 , 19 ] Y:[ -9 , -6 ]
Found Entropy: 0
<Window: 72 > X:[ 16 , 19 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 73 > X:[ 16 , 19 ] Y:[ -3 , 0 ]
Found Entropy: 0
\forall \text{Window: } 74 > X:[16,19] Y:[0,3]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.8599672810355049
<Window: 75 > X:[ 16 , 19 ] Y:[ 3 , 6 ]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.8018185525433372
<Window: 76 > X:[ 19 , 22 ] Y:[ -9 , -6 ]
Found Entropy: 0
\langle \text{Window}: 77 \rangle X: [19, 22] Y: [-6, -3]
Found Entropy: 0
```

```
\langle \text{Window}: 78 \rangle X: [19, 22] Y: [-3, 0]
Found Entropy: 0
\{\text{Window}: 79 > X: [19, 22] Y: [0, 3]
Found Entropy: 0
<Window: 80 > X:[ 19 , 22 ] Y:[ 3 , 6 ]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.8486855577264172
Total Count: 80
Expected Count: 80
OKAY: True
----Done--- 13.426159812900783
Done!
-26 21 -9 5
You Can use this matrix now.
X \min = -26
X_max= 22
Y_{min} = -9
Y_max=6
And the Matrix Shape: 48 * 15
\{Window: 1 > X:[ -26 , -23 ] Y:[ -9 , -6 ]
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.9580002800887726
<Window: 2 > X:[ -26 , -23 ] Y:[ -6 , -3 ]
```

```
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
<Window: 3 > X:[ -26 , -23 ] Y:[ -3 , 0 ]
Found Entropy: 0
\{\text{Window: 4 > X:[-26,-23] Y:[0,3]}
Found Entropy: 0
<Window: 5 > X:[ -26 , -23 ] Y:[ 3 , 6 ]
Found Entropy: 0
\{Window: 6 > X:[ -23 , -20 ] Y:[ -9 , -6 ]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 1.0132690262497301
\langle \text{Window: 7 > X:[-23,-20] Y:[-6,-3]}
Found a sample of class: 2
Found Entropy: 0.0
<Window: 8 > X:[ -23 , -20 ] Y:[ -3 , 0 ]
Found Entropy: 0
\langle \text{Window: 9} \rangle X: [-23, -20] Y: [0, 3]
Found Entropy: 0
<Window: 10 > X:[ -23 , -20 ] Y:[ 3 , 6 ]
Found Entropy: 0
\{\text{Window: } 11 > X:[-20, -17] \ Y:[-9, -6] \}
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
```

```
Found a sample of class: 0
Found Entropy: 1.0114042647073516
\langle \text{Window}: 12 \rangle X: [-20, -17] Y: [-6, -3]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 13 > X:[ -20 , -17 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 14 > X:[ -20 , -17 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 15 > X:[ -20 , -17 ] Y:[ 3 , 6 ]
Found Entropy: 0
\langle \text{Window}: 16 \rangle X: [-17, -14] Y: [-9, -6]
Found Entropy: 0
\langle \text{Window}: 17 > X: [-17, -14] Y: [-6, -3]
Found Entropy: 0
<Window: 18 > X:[ -17 , -14 ] Y:[ -3 , 0 ]
Found Entropy: 0
\langle Window: 19 \rangle X: [-17, -14] Y: [0, 3]
Found Entropy: 0
<Window: 20 > X:[ -17 , -14 ] Y:[ 3 , 6 ]
Found Entropy: 0
\langle \text{Window}: 21 \rangle X: [-14, -11] Y: [-9, -6]
Found Entropy: 0
\{Window: 22 > X: [ -14 , -11 ] Y: [ -6 , -3 ]
Found Entropy: 0
<Window: 23 > X:[ -14 , -11 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 24 > X:[ -14 , -11 ] Y:[ 0 , 3 ]
Found Entropy: 0
\langle \text{Window: } 25 \rangle X:[-14, -11] Y:[3, 6]
Found Entropy: 0
\langle \text{Window}: 26 \rangle X: [-11, -8] Y: [-9, -6]
Found Entropy: 0
\{Window: 27 > X:[ -11 , -8 ] Y:[ -6 , -3 ]
Found Entropy: 0
\langle \text{Window: 28} \rangle X:[-11, -8] Y:[-3, 0]
Found Entropy: 0
<Window: 29 > X:[ -11 , -8 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 30 > X:[ -11 , -8 ] Y:[ 3 , 6 ]
Found Entropy: 0
\langle \text{Window}: 31 \rangle X: [-8, -5] Y: [-9, -6]
Found Entropy: 0
\langle \text{Window}: 32 \rangle X: [-8, -5] Y: [-6, -3]
Found Entropy: 0
<Window: 33 > X:[ -8 , -5 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 34 > X:[ -8 , -5 ] Y:[ 0 , 3 ]
```

```
Found Entropy: 0
<Window: 35 > X:[-8, -5] Y:[3, 6]
Found Entropy: 0
<Window: 36 > X:[-5, -2] Y:[-9, -6]
Found Entropy: 0
\forall x = 1.5 \times 1.5 
Found Entropy: 0
<Window: 38 > X:[ -5 , -2 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 39 > X:[ -5 , -2 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 40 > X:[ -5 , -2 ] Y:[ 3 , 6 ]
Found Entropy: 0
\{\text{Window: } 41 > X:[-2,1] \ Y:[-9,-6]
Found Entropy: 0
\{\text{Window: } 42 > X:[-2,1] \ Y:[-6,-3]
Found Entropy: 0
\{\text{Window}: 43 > X: [-2, 1] Y: [-3, 0]
Found Entropy: 0
\{\text{Window: } 44 > X: [-2, 1] Y: [0, 3]
Found Entropy: 0
\langle Window: 45 \rangle X: [-2, 1] Y: [3, 6]
Found Entropy: 0
\{\text{Window: } 46 > X:[1,4] Y:[-9,-6]
Found Entropy: 0
\{\text{Window}: 47 > X: [1, 4] Y: [-6, -3]
Found Entropy: 0
<Window: 48 > X:[1, 4] Y:[-3, 0]
Found Entropy: 0
<Window: 49 > X:[1, 4] Y:[0, 3]
Found Entropy: 0
<Window: 50 > X:[ 1 , 4 ] Y:[ 3 , 6 ]
Found Entropy: 0
\{\text{Window: 51} > \text{X:[4,7]} \text{Y:[-9,-6]}
Found Entropy: 0
\{Window: 52 > X:[4,7] Y:[-6,-3]
Found Entropy: 0
\{\text{Window: 53} > X: [4, 7] Y: [-3, 0]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 1.0789922078775833
<Window: 54 > X:[4,7] Y:[0,3]
Found a sample of class: 0
```

```
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 0.6365141682948128
\{\text{Window: 55} > X: [4, 7] Y: [3, 6]
Found Entropy: 0
<Window: 56 > X:[ 7 , 10 ] Y:[ -9 , -6 ]
Found Entropy: 0
\{Window: 57 > X:[7, 10] Y:[-6, -3]
Found Entropy: 0
<Window: 58 > X:[ 7 , 10 ] Y:[ -3 , 0 ]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.6829081047004717
<Window: 59 > X:[ 7 , 10 ] Y:[ 0 , 3 ]
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.6730116670092565
<Window: 60 > X:[ 7 , 10 ] Y:[ 3 , 6 ]
Found Entropy: 0
<Window: 61 > X:[ 10 , 13 ] Y:[ -9 , -6 ]
Found Entropy: 0
\{\text{Window: } 62 > X: [10, 13] Y: [-6, -3]
Found Entropy: 0
<Window: 63 > X:[ 10 , 13 ] Y:[ -3 , 0 ]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.6365141682948128
<Window: 64 > X:[ 10 , 13 ] Y:[ 0 , 3 ]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
```

```
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 0.9840865030829147
<Window: 65 > X:[ 10 , 13 ] Y:[ 3 , 6 ]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.9743147528693494
<Window: 66 > X:[ 13 , 16 ] Y:[ -9 , -6 ]
Found Entropy: 0
<Window: 67 > X:[ 13 , 16 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 68 > X:[ 13 , 16 ] Y:[ -3 , 0 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 69 > X:[ 13 , 16 ] Y:[ 0 , 3 ]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 1.0986122886681096
<Window: 70 > X:[ 13 , 16 ] Y:[ 3 , 6 ]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.6365141682948128
<Window: 71 > X:[ 16 , 19 ] Y:[ -9 , -6 ]
```

```
Found Entropy: 0
<Window: 72 > X:[ 16 , 19 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 73 > X:[ 16 , 19 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 74 > X:[ 16 , 19 ] Y:[ 0 , 3 ]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 1.0361987848192837
<Window: 75 > X:[ 16 , 19 ] Y:[ 3 , 6 ]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.8979457248567797
<Window: 76 > X:[ 19 , 22 ] Y:[ -9 , -6 ]
Found Entropy: 0
<Window: 77 > X:[ 19 , 22 ] Y:[ -6 , -3 ]
Found Entropy: 0
\langle \text{Window}: 78 \rangle X: [19, 22] Y: [-3, 0]
Found Entropy: 0
<Window: 79 > X:[ 19 , 22 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 80 > X:[ 19 , 22 ] Y:[ 3 , 6 ]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
```

```
Found Entropy: 0.5297061990576545
Total Count: 80
Expected Count: 80
OKAY: True
----Done--- 12.847992308871694
Done!
-26 21 -9 5
You Can use this matrix now.
X \min = -26
X_max = 22
Y_min = -9
Y_max=6
And the Matrix Shape: 48 * 15
\{Window: 1 > X:[ -26 , -23 ] Y:[ -9 , -6 ]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.900908873225472
\{Window: 2 > X:[ -26 , -23 ] Y:[ -6 , -3 ]
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6931471805599453
\langle \text{Window: 3 > X:[-26,-23] Y:[-3,0]}
Found Entropy: 0
\{\text{Window: 4 > X:[-26,-23] Y:[0,3]}
Found Entropy: 0
\{\text{Window: 5} > X: [-26, -23] Y: [3, 6]
Found Entropy: 0
\{Window: 6 > X:[ -23 , -20 ] Y:[ -9 , -6 ]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
```

```
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.9551311954514641
\langle \text{Window: 7 > X:[-23,-20] Y:[-6,-3]}
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.5623351446188083
\langle \text{Window: 8 > X:[-23,-20] Y:[-3,0]}
Found Entropy: 0
\langle \text{Window}: 9 \rangle X: [-23, -20] Y: [0, 3]
Found Entropy: 0
<Window: 10 > X:[ -23 , -20 ] Y:[ 3 , 6 ]
Found Entropy: 0
<Window: 11 > X:[ -20 , -17 ] Y:[ -9 , -6 ]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 1.0114042647073518
\langle \text{Window}: 12 \rangle X: [-20, -17] Y: [-6, -3]
Found a sample of class: 2
Found Entropy: 0.0
\langle \text{Window: } 13 > \text{X:[} -20 , -17 ] \text{ Y:[} -3 , 0 ]
Found Entropy: 0
<Window: 14 > X:[ -20 , -17 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 15 > X:[ -20 , -17 ] Y:[ 3 , 6 ]
Found Entropy: 0
\langle \text{Window}: 16 \rangle X: [-17, -14] Y: [-9, -6]
Found Entropy: 0
<Window: 17 > X:[ -17 , -14 ] Y:[ -6 , -3 ]
```

```
Found Entropy: 0
<Window: 18 > X:[ -17 , -14 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 19 > X:[ -17 , -14 ] Y:[ 0 , 3 ]
Found Entropy: 0
\{Window: 20 > X:[-17, -14] Y:[3, 6]
Found Entropy: 0
\langle \text{Window}: 21 \rangle X: [-14, -11] Y: [-9, -6]
Found Entropy: 0
<Window: 22 > X:[ -14 , -11 ] Y:[ -6 , -3 ]
Found Entropy: 0
\langle \text{Window: } 23 \rangle \text{ X: [ } -14 \text{ , } -11 \text{ ] } \text{ Y: [ } -3 \text{ , } 0 \text{ ]}
Found Entropy: 0
<Window: 24 > X:[ -14 , -11 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 25 > X:[ -14 , -11 ] Y:[ 3 , 6 ]
Found Entropy: 0
\langle \text{Window}: 26 \rangle X: [-11, -8] Y: [-9, -6]
Found Entropy: 0
\{Window: 27 > X:[ -11 , -8 ] Y:[ -6 , -3 ]
Found Entropy: 0
\langle \text{Window: 28} \rangle X:[-11, -8] Y:[-3, 0]
Found Entropy: 0
<Window: 29 > X:[ -11 , -8 ] Y:[ 0 , 3 ]
Found Entropy: 0
\langle Window: 30 \rangle X: [-11, -8] Y: [3, 6]
Found Entropy: 0
<Window: 31 > X:[ -8 , -5 ] Y:[ -9 , -6 ]
Found Entropy: 0
\langle \text{Window}: 32 \rangle X: [-8, -5] Y: [-6, -3]
Found Entropy: 0
<Window: 33 > X:[ -8 , -5 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 34 > X:[ -8 , -5 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 35 > X:[ -8 , -5 ] Y:[ 3 , 6 ]
Found Entropy: 0
<Window: 36 > X:[ -5 , -2 ] Y:[ -9 , -6 ]
Found Entropy: 0
\langle \text{Window}: 37 \rangle X: [-5, -2] Y: [-6, -3]
Found Entropy: 0
<Window: 38 > X:[ -5 , -2 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 39 > X:[ -5 , -2 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 40 > X:[ -5 , -2 ] Y:[ 3 , 6 ]
Found Entropy: 0
\{\text{Window: } 41 > X:[-2,1] \ Y:[-9,-6]
```

```
Found Entropy: 0
<Window: 42 > X:[-2, 1] Y:[-6, -3]
Found Entropy: 0
<Window: 43 > X:[-2, 1] Y:[-3, 0]
Found Entropy: 0
<Window: 44 > X:[-2, 1] Y:[0, 3]
Found Entropy: 0
<Window: 45 > X:[-2, 1] Y:[3, 6]
Found Entropy: 0
\{\text{Window: } 46 > X:[1,4] Y:[-9,-6]
Found Entropy: 0
<Window: 47 > X:[ 1 , 4 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 48 > X:[1, 4] Y:[-3, 0]
Found Entropy: 0
<Window: 49 > X:[1, 4] Y:[0, 3]
Found Entropy: 0
<Window: 50 > X:[ 1 , 4 ] Y:[ 3 , 6 ]
Found Entropy: 0
\{Window: 51 > X:[4,7] Y:[-9,-6]
Found Entropy: 0
<Window: 52 > X:[ 4 , 7 ] Y:[ -6 , -3 ]
Found Entropy: 0
\{\text{Window: 53} > X: [4, 7] Y: [-3, 0]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 1.0042424730540764
<Window: 54 > X:[4,7] Y:[0,3]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.6365141682948128
<Window: 55 > X:[4,7] Y:[3,6]
Found Entropy: 0
<Window: 56 > X:[ 7 , 10 ] Y:[ -9 , -6 ]
Found Entropy: 0
<Window: 57 > X:[7, 10] Y:[-6, -3]
Found Entropy: 0
<Window: 58 > X:[ 7 , 10 ] Y:[ -3 , 0 ]
Found a sample of class: 0
```

```
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.7963116401738131
<Window: 59 > X:[ 7 , 10 ] Y:[ 0 , 3 ]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 1.0296530140645737
<Window: 60 > X:[ 7 , 10 ] Y:[ 3 , 6 ]
Found Entropy: 0
<Window: 61 > X:[ 10 , 13 ] Y:[ -9 , -6 ]
Found Entropy: 0
\{\text{Window: } 62 > X: [10, 13] Y: [-6, -3]
Found Entropy: 0
\{\text{Window: } 63 > X: [10, 13] Y: [-3, 0]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 64 > X:[ 10 , 13 ] Y:[ 0 , 3 ]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.9743147528693494
```

```
<Window: 65 > X:[ 10 , 13 ] Y:[ 3 , 6 ]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 1.0397207708399179
\{\text{Window: } 66 > X: [13, 16] Y: [-9, -6]
Found Entropy: 0
<Window: 67 > X:[ 13 , 16 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 68 > X:[ 13 , 16 ] Y:[ -3 , 0 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 69 > X:[ 13 , 16 ] Y:[ 0 , 3 ]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 1.0608569471580214
<Window: 70 > X:[ 13 , 16 ] Y:[ 3 , 6 ]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 0.6365141682948128
\{\text{Window: 71} > \text{X:[16,19]} \text{Y:[-9,-6]}
Found Entropy: 0
<Window: 72 > X:[ 16 , 19 ] Y:[ -6 , -3 ]
Found Entropy: 0
<Window: 73 > X:[ 16 , 19 ] Y:[ -3 , 0 ]
Found Entropy: 0
<Window: 74 > X:[ 16 , 19 ] Y:[ 0 , 3 ]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
```

```
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 1.0361987848192837
<Window: 75 > X:[ 16 , 19 ] Y:[ 3 , 6 ]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.6730116670092565
<Window: 76 > X:[ 19 , 22 ] Y:[ -9 , -6 ]
Found Entropy: 0
\langle \text{Window}: 77 \rangle X: [19, 22] Y: [-6, -3]
Found Entropy: 0
\langle \text{Window}: 78 \rangle X: [19, 22] Y: [-3, 0]
Found Entropy: 0
<Window: 79 > X:[ 19 , 22 ] Y:[ 0 , 3 ]
Found Entropy: 0
<Window: 80 > X:[ 19 , 22 ] Y:[ 3 , 6 ]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.6365141682948128
Total Count: 80
Expected Count: 80
OKAY: True
----Done--- 13.64677921343577
Done!
-26 21 -9 5
You Can use this matrix now.
X_{min} = -26
X_max = 24
Y_min = -9
Y_{max} = 6
And the Matrix Shape: 50 * 15
\{Window: 1 > X:[ -26 , -21 ] Y:[ -9 , -4 ]
```

```
Found a sample of class: 0
Found Entropy: 0.0
\{Window: 2 > X:[ -26 , -21 ] Y:[ -4 , 1 ]
Found Entropy: 0
<Window: 3 > X:[-26, -21] Y:[1, 6]
Found Entropy: 0
<Window: 4 > X:[ -21 , -16 ] Y:[ -9 , -4 ]
Found a sample of class: 0
```

```
Found a sample of class: 0
Found Entropy: 0.0
\{\text{Window: 5 > X:[-21,-16] Y:[-4,1]}
Found Entropy: 0
<Window: 6 > X:[ -21 , -16 ] Y:[ 1 , 6 ]
Found Entropy: 0
<Window: 7 > X:[ -16 , -11 ] Y:[ -9 , -4 ]
Found Entropy: 0
<Window: 8 > X:[ -16 , -11 ] Y:[ -4 , 1 ]
Found Entropy: 0
<Window: 9 > X:[ -16 , -11 ] Y:[ 1 , 6 ]
Found Entropy: 0
\{Window: 10 > X:[ -11 , -6 ] Y:[ -9 , -4 ]
Found Entropy: 0
\{Window: 11 > X:[-11, -6] Y:[-4, 1]
Found Entropy:
C:\Users\Admin\Anaconda3\lib\site-packages\matplotlib\pyplot.py:528: RuntimeWarning: More than
 max_open_warning, RuntimeWarning)
0
\langle Window: 12 \rangle X: [-11, -6] Y: [1, 6]
Found Entropy: 0
<Window: 13 > X:[ -6 , -1 ] Y:[ -9 , -4 ]
Found Entropy: 0
<Window: 14 > X:[ -6 , -1 ] Y:[ -4 , 1 ]
Found Entropy: 0
\{Window: 15 > X:[ -6 , -1 ] Y:[ 1 , 6 ]
Found Entropy: 0
\{Window: 16 > X:[ -1 , 4 ] Y:[ -9 , -4 ]
Found Entropy: 0
<Window: 17 > X:[ -1 , 4 ] Y:[ -4 , 1 ]
Found Entropy: 0
<Window: 18 > X:[ -1 , 4 ] Y:[ 1 , 6 ]
Found Entropy: 0
\{Window: 19 > X:[4, 9] Y:[-9, -4]
Found Entropy: 0
<Window: 20 > X:[4,9] Y:[-4,1]
Found a sample of class: 1
```

Found a sample of class: 1

```
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.1732052067491771
<Window: 21 > X:[ 4 , 9 ] Y:[ 1 , 6 ]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 22 > X:[9, 14] Y:[-9, -4]
Found Entropy: 0
<Window: 23 > X:[ 9 , 14 ] Y:[ -4 , 1 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 24 > X:[ 9 , 14 ] Y:[ 1 , 6 ]
```

```
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6645284386549151
<Window: 25 > X:[ 14 , 19 ] Y:[ -9 , -4 ]
Found Entropy: 0
<Window: 26 > X:[ 14 , 19 ] Y:[ -4 , 1 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 27 > X:[ 14 , 19 ] Y:[ 1 , 6 ]
Found a sample of class: 2
```

```
Found a sample of class: 2
Found Entropy: 0.0
<Window: 28 > X:[19, 24] Y:[-9, -4]
Found Entropy: 0
\{\text{Window: } 29 > X: [19, 24] Y: [-4, 1]
Found Entropy: 0
<Window: 30 > X:[ 19 , 24 ] Y:[ 1 , 6 ]
Found a sample of class: 2
Found Entropy: 0.0
Total Count: 30
Expected Count: 30
OKAY: True
----Done--- 0.8377336454040922
Done!
-26 21 -9 5
You Can use this matrix now.
X_{min} = -26
X_max = 24
Y_min = -9
Y \max = 6
And the Matrix Shape: 50 * 15
<Window: 1 > X:[ -26 , -21 ] Y:[ -9 , -4 ]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 0
```

```
Found a sample of class: 0
Found Entropy: 0.28393626675586414
\langle \text{Window}: 2 \rangle X: [-26, -21] Y: [-4, 1]
Found Entropy: 0
<Window: 3 > X:[ -26 , -21 ] Y:[ 1 , 6 ]
Found Entropy: 0
\{Window: 4 > X:[-21, -16] Y:[-9, -4]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 0.5366645624845252
\langle \text{Window}: 5 \rangle X: [-21, -16] Y: [-4, 1]
Found Entropy: 0
<Window: 6 > X:[ -21 , -16 ] Y:[ 1 , 6 ]
```

```
Found Entropy: 0
<Window: 7 > X:[ -16 , -11 ] Y:[ -9 , -4 ]
Found Entropy: 0
<Window: 8 > X:[ -16 , -11 ] Y:[ -4 , 1 ]
Found Entropy: 0
<Window: 9 > X:[ -16 , -11 ] Y:[ 1 , 6 ]
Found Entropy: 0
\langle \text{Window: } 10 \rangle \text{ X: [} -11 , -6 ] \text{ Y: [} -9 , -4 ]
Found Entropy: 0
\{Window: 11 > X:[-11, -6] Y:[-4, 1]
Found Entropy: 0
<Window: 12 > X:[ -11 , -6 ] Y:[ 1 , 6 ]
Found Entropy: 0
<Window: 13 > X:[ -6 , -1 ] Y:[ -9 , -4 ]
Found Entropy: 0
<Window: 14 > X:[ -6 , -1 ] Y:[ -4 , 1 ]
Found Entropy: 0
\{Window: 15 > X: [-6, -1] Y: [1, 6]
Found Entropy: 0
\{Window: 16 > X:[ -1 , 4 ] Y:[ -9 , -4 ]
Found Entropy: 0
<Window: 17 > X:[ -1 , 4 ] Y:[ -4 , 1 ]
Found Entropy: 0
<Window: 18 > X:[ -1 , 4 ] Y:[ 1 , 6 ]
Found Entropy: 0
<Window: 19 > X:[ 4 , 9 ] Y:[ -9 , -4 ]
Found Entropy: 0
<Window: 20 > X:[ 4 , 9 ] Y:[ -4 , 1 ]
Found a sample of class: 0
Found a sample of class: 1
```

```
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.3445982481028228
<Window: 21 > X:[ 4 , 9 ] Y:[ 1 , 6 ]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
\{\text{Window: } 22 > X: [9, 14] Y: [-9, -4]
Found Entropy: 0
\langle \text{Window}: 23 \rangle X: [9, 14] Y: [-4, 1]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.7356219397587946
<Window: 24 > X:[ 9 , 14 ] Y:[ 1 , 6 ]
Found a sample of class: 1
Found a sample of class: 2
```

```
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.6829081047004717
<Window: 25 > X:[ 14 , 19 ] Y:[ -9 , -4 ]
Found Entropy: 0
<Window: 26 > X:[ 14 , 19 ] Y:[ -4 , 1 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 27 > X:[ 14 , 19 ] Y:[ 1 , 6 ]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.5221718405002467
<Window: 28 > X:[19, 24] Y:[-9, -4]
Found Entropy: 0
<Window: 29 > X:[ 19 , 24 ] Y:[ -4 , 1 ]
Found Entropy: 0
<Window: 30 > X:[ 19 , 24 ] Y:[ 1 , 6 ]
Found a sample of class: 2
```

```
Found a sample of class: 2
Found Entropy: 0.0
Total Count: 30
Expected Count: 30
OKAY: True
----Done--- 3.1059009623027247
Done!
-26 21 -9 5
You Can use this matrix now.
X_{min} = -26
X_max = 24
Y_min = -9
Y \max = 6
And the Matrix Shape: 50 * 15
\{\text{Window: 1 > X:[-26,-21] Y:[-9,-4]}
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
```

```
Found a sample of class: 0
Found Entropy: 0.45710229325542967
\langle \text{Window}: 2 \rangle X: [-26, -21] Y: [-4, 1]
Found Entropy: 0
\{\text{Window: 3 > X: [-26, -21] Y: [1, 6]}
Found Entropy: 0
\{Window: 4 > X:[-21, -16] Y:[-9, -4]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 0.7659373365785205
<Window: 5 > X:[ -21 , -16 ] Y:[ -4 , 1 ]
Found Entropy: 0
<Window: 6 > X:[ -21 , -16 ] Y:[ 1 , 6 ]
Found Entropy: 0
\langle \text{Window: 7 > X:[-16,-11] Y:[-9,-4]}
Found Entropy: 0
<Window: 8 > X:[ -16 , -11 ] Y:[ -4 , 1 ]
Found Entropy: 0
<Window: 9 > X:[ -16 , -11 ] Y:[ 1 , 6 ]
Found Entropy: 0
<Window: 10 > X:[ -11 , -6 ] Y:[ -9 , -4 ]
Found Entropy: 0
\langle \text{Window}: 11 > X:[-11, -6] Y:[-4, 1]
Found Entropy: 0
\langle Window: 12 \rangle X: [-11, -6] Y: [1, 6]
Found Entropy: 0
<Window: 13 > X:[ -6 , -1 ] Y:[ -9 , -4 ]
Found Entropy: 0
<Window: 14 > X:[ -6 , -1 ] Y:[ -4 , 1 ]
Found Entropy: 0
<Window: 15 > X:[ -6 , -1 ] Y:[ 1 , 6 ]
```

```
Found Entropy: 0
<Window: 16 > X:[ -1 , 4 ] Y:[ -9 , -4 ]
Found Entropy: 0
<Window: 17 > X:[ -1 , 4 ] Y:[ -4 , 1 ]
Found Entropy: 0
<Window: 18 > X:[ -1 , 4 ] Y:[ 1 , 6 ]
Found Entropy: 0
<Window: 19 > X:[ 4 , 9 ] Y:[ -9 , -4 ]
Found Entropy: 0
\{Window: 20 > X:[4,9] Y:[-4,1]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 0.5117400734174093
<Window: 21 > X:[ 4 , 9 ] Y:[ 1 , 6 ]
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.0
<Window: 22 > X:[ 9 , 14 ] Y:[ -9 , -4 ]
Found Entropy: 0
<Window: 23 > X:[ 9 , 14 ] Y:[ -4 , 1 ]
Found a sample of class: 0
Found a sample of class: 1
```

```
Found a sample of class: 1
Found Entropy: 0.6210863745552451
<Window: 24 > X:[ 9 , 14 ] Y:[ 1 , 6 ]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.6645284386549151
\langle \text{Window}: 25 \rangle X: [14, 19] Y: [-9, -4]
Found Entropy: 0
<Window: 26 > X:[ 14 , 19 ] Y:[ -4 , 1 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 27 > X:[ 14 , 19 ] Y:[ 1 , 6 ]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
```

```
Found a sample of class: 2
Found Entropy: 0.4791656239282754
<Window: 28 > X:[ 19 , 24 ] Y:[ -9 , -4 ]
Found Entropy: 0
<Window: 29 > X:[ 19 , 24 ] Y:[ -4 , 1 ]
Found Entropy: 0
<Window: 30 > X:[ 19 , 24 ] Y:[ 1 , 6 ]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.8486855577264172
Total Count: 30
Expected Count: 30
OKAY: True
----Done---- 4.348245698116212
Done!
-26 21 -9 5
You Can use this matrix now.
X_{min} = -26
X \text{ max} = 24
Y_min = -9
Y_{max} = 6
And the Matrix Shape: 50 * 15
\{Window: 1 > X:[ -26 , -21 ] Y:[ -9 , -4 ]
```

```
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 0.6883644225872564
\{Window: 2 > X:[ -26 , -21 ] Y:[ -4 , 1 ]
Found Entropy: 0
\{\text{Window: 3 > X: [-26, -21] Y: [1, 6]}
Found Entropy: 0
<Window: 4 > X:[ -21 , -16 ] Y:[ -9 , -4 ]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
```

```
Found a sample of class: 0
Found Entropy: 0.9174021803627407
\langle \text{Window}: 5 \rangle X: [-21, -16] Y: [-4, 1]
Found Entropy: 0
<Window: 6 > X:[ -21 , -16 ] Y:[ 1 , 6 ]
Found Entropy: 0
\langle \text{Window: 7 > X:[-16,-11] Y:[-9,-4]}
Found Entropy: 0
<Window: 8 > X:[ -16 , -11 ] Y:[ -4 , 1 ]
Found Entropy: 0
<Window: 9 > X:[ -16 , -11 ] Y:[ 1 , 6 ]
Found Entropy: 0
\{Window: 10 > X:[ -11 , -6 ] Y:[ -9 , -4 ]
Found Entropy: 0
\langle \text{Window}: 11 > X:[-11, -6] Y:[-4, 1]
Found Entropy: 0
<Window: 12 > X:[ -11 , -6 ] Y:[ 1 , 6 ]
Found Entropy: 0
<Window: 13 > X:[ -6 , -1 ] Y:[ -9 , -4 ]
Found Entropy: 0
<Window: 14 > X:[ -6 , -1 ] Y:[ -4 , 1 ]
Found Entropy: 0
<Window: 15 > X:[ -6 , -1 ] Y:[ 1 , 6 ]
Found Entropy: 0
<Window: 16 > X:[ -1 , 4 ] Y:[ -9 , -4 ]
Found Entropy: 0
\{Window: 17 > X:[-1, 4] Y:[-4, 1]
Found Entropy: 0
<Window: 18 > X:[ -1 , 4 ] Y:[ 1 , 6 ]
Found Entropy: 0
<Window: 19 > X:[ 4 , 9 ] Y:[ -9 , -4 ]
Found Entropy: 0
\langle \text{Window}: 20 \rangle X: [4, 9] Y: [-4, 1]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
```

```
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 0.8028187820379638
<Window: 21 > X:[ 4 , 9 ] Y:[ 1 , 6 ]
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.6931471805599453
<Window: 22 > X:[ 9 , 14 ] Y:[ -9 , -4 ]
Found Entropy: 0
<Window: 23 > X:[9, 14] Y:[-4, 1]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.9214934308679616
<Window: 24 > X:[ 9 , 14 ] Y:[ 1 , 6 ]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 1
```

```
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.9829007277151565
<Window: 25 > X:[ 14 , 19 ] Y:[ -9 , -4 ]
Found Entropy: 0
<Window: 26 > X:[ 14 , 19 ] Y:[ -4 , 1 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 27 > X:[ 14 , 19 ] Y:[ 1 , 6 ]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
```

```
Found a sample of class: 2
Found Entropy: 0.8130703662590886
\langle \text{Window: 28} \rangle \text{ X: [ 19 , 24 ] Y: [ -9 , -4 ]}
Found Entropy: 0
\{\text{Window: } 29 > X: [19, 24] Y: [-4, 1]
Found Entropy: 0
<Window: 30 > X:[ 19 , 24 ] Y:[ 1 , 6 ]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.8486855577264172
Total Count: 30
Expected Count: 30
OKAY: True
----Done--- 6.66788264811653
Done!
-26 21 -9 5
You Can use this matrix now.
X_{min} = -26
X_max = 24
Y_min = -9
Y_{max} = 6
And the Matrix Shape: 50 * 15
\{Window: 1 > X:[ -26 , -21 ] Y:[ -9 , -4 ]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
```

```
Found a sample of class: 0
Found Entropy: 0.9357467452948549
\langle \text{Window}: 2 \rangle X: [-26, -21] Y: [-4, 1]
Found Entropy: 0
<Window: 3 > X:[ -26 , -21 ] Y:[ 1 , 6 ]
Found Entropy: 0
\{Window: 4 > X:[-21, -16] Y:[-9, -4]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 0.9724809323379562
\langle \text{Window}: 5 \rangle X: [-21, -16] Y: [-4, 1]
Found Entropy: 0
<Window: 6 > X:[ -21 , -16 ] Y:[ 1 , 6 ]
Found Entropy: 0
\langle \text{Window: 7 > X:[-16,-11] Y:[-9,-4]}
Found Entropy: 0
<Window: 8 > X:[ -16 , -11 ] Y:[ -4 , 1 ]
Found Entropy: 0
<Window: 9 > X:[ -16 , -11 ] Y:[ 1 , 6 ]
```

```
Found Entropy: 0
\{Window: 10 > X:[ -11 , -6 ] Y:[ -9 , -4 ]
Found Entropy: 0
<Window: 11 > X:[ -11 , -6 ] Y:[ -4 , 1 ]
Found Entropy: 0
<Window: 12 > X:[ -11 , -6 ] Y:[ 1 , 6 ]
Found Entropy: 0
<Window: 13 > X:[ -6 , -1 ] Y:[ -9 , -4 ]
Found Entropy: 0
\{\text{Window: } 14 > X:[-6,-1] \ Y:[-4,1] \ \}
Found Entropy: 0
<Window: 15 > X:[ -6 , -1 ] Y:[ 1 , 6 ]
Found Entropy: 0
<Window: 16 > X:[ -1 , 4 ] Y:[ -9 , -4 ]
Found Entropy: 0
<Window: 17 > X:[ -1 , 4 ] Y:[ -4 , 1 ]
Found Entropy: 0
<Window: 18 > X:[ -1 , 4 ] Y:[ 1 , 6 ]
Found Entropy: 0
\{Window: 19 > X:[4, 9] Y:[-9, -4]
Found Entropy: 0
\{Window: 20 > X:[4,9] Y:[-4,1]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.8675632284814612
<Window: 21 > X:[ 4 , 9 ] Y:[ 1 , 6 ]
```

```
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 0.6931471805599453
<Window: 22 > X:[ 9 , 14 ] Y:[ -9 , -4 ]
Found Entropy: 0
<Window: 23 > X:[ 9 , 14 ] Y:[ -4 , 1 ]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found Entropy: 1.0239287996389363
<Window: 24 > X:[ 9 , 14 ] Y:[ 1 , 6 ]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.9829007277151565
<Window: 25 > X:[ 14 , 19 ] Y:[ -9 , -4 ]
Found Entropy: 0
```

```
<Window: 26 > X:[ 14 , 19 ] Y:[ -4 , 1 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 27 > X:[ 14 , 19 ] Y:[ 1 , 6 ]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.9158736818081559
<Window: 28 > X:[ 19 , 24 ] Y:[ -9 , -4 ]
Found Entropy: 0
\{\text{Window: } 29 > X: [19, 24] Y: [-4, 1]
Found Entropy: 0
<Window: 30 > X:[ 19 , 24 ] Y:[ 1 , 6 ]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 1.0608569471580214
Total Count: 30
```

```
Expected Count: 30
OKAY: True
----Done--- 7.452498242994488
Done!
-26 21 -9 5
You Can use this matrix now.
X \min = -26
X_max = 24
Y min=-9
Y_max=6
And the Matrix Shape: 50 * 15
\{\text{Window: 1 > X:[-26,-21] Y:[-9,-4]}
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 0.9828642929216391
<Window: 2 > X:[ -26 , -21 ] Y:[ -4 , 1 ]
Found Entropy: 0
<Window: 3 > X:[-26, -21] Y:[1, 6]
Found Entropy: 0
```

```
\langle \text{Window: 4} \rangle \text{ X:[-21,-16] Y:[-9,-4]}
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 1.0171643509248343
\langle \text{Window: 5 > X:[-21,-16] Y:[-4,1]}
Found Entropy: 0
<Window: 6 > X:[ -21 , -16 ] Y:[ 1 , 6 ]
Found Entropy: 0
<Window: 7 > X:[-16, -11] Y:[-9, -4]
Found Entropy: 0
<Window: 8 > X:[ -16 , -11 ] Y:[ -4 , 1 ]
Found Entropy: 0
<Window: 9 > X:[ -16 , -11 ] Y:[ 1 , 6 ]
Found Entropy: 0
\langle \text{Window: } 10 \rangle \text{ X: [} -11 , -6 ] \text{ Y: [} -9 , -4 ]
Found Entropy: 0
\{Window: 11 > X:[-11, -6] Y:[-4, 1]
Found Entropy: 0
<Window: 12 > X:[ -11 , -6 ] Y:[ 1 , 6 ]
Found Entropy: 0
<Window: 13 > X:[ -6 , -1 ] Y:[ -9 , -4 ]
Found Entropy: 0
\langle \text{Window}: 14 > X:[-6,-1] Y:[-4,1]
Found Entropy: 0
<Window: 15 > X:[ -6 , -1 ] Y:[ 1 , 6 ]
Found Entropy: 0
<Window: 16 > X:[ -1 , 4 ] Y:[ -9 , -4 ]
Found Entropy: 0
<Window: 17 > X:[ -1 , 4 ] Y:[ -4 , 1 ]
Found Entropy: 0
<Window: 18 > X:[ -1 , 4 ] Y:[ 1 , 6 ]
```

```
Found Entropy: 0
<Window: 19 > X:[ 4 , 9 ] Y:[ -9 , -4 ]
Found Entropy: 0
\{Window: 20 > X:[4,9] Y:[-4,1]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.8239592165010823
<Window: 21 > X:[ 4 , 9 ] Y:[ 1 , 6 ]
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 0.6931471805599453
\{\text{Window: } 22 > X: [9, 14] Y: [-9, -4]
Found Entropy: 0
<Window: 23 > X:[ 9 , 14 ] Y:[ -4 , 1 ]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
```

```
Found a sample of class: 1
Found Entropy: 1.0433534269422904
<Window: 24 > X:[ 9 , 14 ] Y:[ 1 , 6 ]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 1.0353605606849843
<Window: 25 > X:[ 14 , 19 ] Y:[ -9 , -4 ]
Found Entropy: 0
<Window: 26 > X:[ 14 , 19 ] Y:[ -4 , 1 ]
Found a sample of class: 1
Found Entropy: 0.0
<Window: 27 > X:[ 14 , 19 ] Y:[ 1 , 6 ]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
```

```
Found a sample of class: 2
Found Entropy: 0.9950269901795212
\langle \text{Window: 28} \rangle \text{ X: [ 19 , 24 ] Y: [ -9 , -4 ]}
Found Entropy: 0
<Window: 29 > X:[19, 24] Y:[-4, 1]
Found Entropy: 0
<Window: 30 > X:[ 19 , 24 ] Y:[ 1 , 6 ]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 1.0986122886681096
Total Count: 30
Expected Count: 30
OKAY: True
----Done---- 7.6894883073824065
Done!
-26 21 -9 5
You Can use this matrix now.
X \min = -26
X \max = 24
Y_{min} = -9
Y \max = 6
And the Matrix Shape: 50 * 15
\{\text{Window: 1 > X:[-26,-21] Y:[-9,-4]}
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
```

```
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 1.0707894419593655
<Window: 2 > X:[ -26 , -21 ] Y:[ -4 , 1 ]
Found Entropy: 0
<Window: 3 > X:[ -26 , -21 ] Y:[ 1 , 6 ]
Found Entropy: 0
<Window: 4 > X:[ -21 , -16 ] Y:[ -9 , -4 ]
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
```

```
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 1.0601189359398382
<Window: 5 > X:[ -21 , -16 ] Y:[ -4 , 1 ]
Found Entropy: 0
<Window: 6 > X:[ -21 , -16 ] Y:[ 1 , 6 ]
Found Entropy: 0
\langle \text{Window: 7 > X:[-16,-11] Y:[-9,-4]}
Found Entropy: 0
<Window: 8 > X:[ -16 , -11 ] Y:[ -4 , 1 ]
Found Entropy: 0
<Window: 9 > X:[ -16 , -11 ] Y:[ 1 , 6 ]
Found Entropy: 0
\langle \text{Window: } 10 \rangle \text{ X: [} -11 , -6 ] \text{ Y: [} -9 , -4 ]
Found Entropy: 0
<Window: 11 > X:[ -11 , -6 ] Y:[ -4 , 1 ]
Found Entropy: 0
<Window: 12 > X:[ -11 , -6 ] Y:[ 1 , 6 ]
Found Entropy: 0
\{Window: 13 > X:[-6, -1] Y:[-9, -4]
Found Entropy: 0
\{\text{Window: } 14 > X: [-6, -1] \ Y: [-4, 1] \}
Found Entropy: 0
<Window: 15 > X:[ -6 , -1 ] Y:[ 1 , 6 ]
Found Entropy: 0
\{Window: 16 > X: [-1, 4] Y: [-9, -4] 
Found Entropy: 0
<Window: 17 > X:[ -1 , 4 ] Y:[ -4 , 1 ]
Found Entropy: 0
<Window: 18 > X:[ -1 , 4 ] Y:[ 1 , 6 ]
Found Entropy: 0
<Window: 19 > X:[ 4 , 9 ] Y:[ -9 , -4 ]
Found Entropy: 0
\{\text{Window: 20} > X: [4, 9] Y: [-4, 1]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 1
```

```
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 0.9337200585143981
<Window: 21 > X:[ 4 , 9 ] Y:[ 1 , 6 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 22 > X:[ 9 , 14 ] Y:[ -9 , -4 ]
Found Entropy: 0
<Window: 23 > X:[ 9 , 14 ] Y:[ -4 , 1 ]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 1.0433534269422906
<Window: 24 > X:[ 9 , 14 ] Y:[ 1 , 6 ]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
```

```
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 1.091786238095127
\langle \text{Window}: 25 \rangle X: [14, 19] Y: [-9, -4]
Found Entropy: 0
<Window: 26 > X:[ 14 , 19 ] Y:[ -4 , 1 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 27 > X:[ 14 , 19 ] Y:[ 1 , 6 ]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 1.0608569471580214
<Window: 28 > X:[19, 24] Y:[-9, -4]
Found Entropy: 0
<Window: 29 > X:[ 19 , 24 ] Y:[ -4 , 1 ]
Found Entropy: 0
```

```
<Window: 30 > X:[ 19 , 24 ] Y:[ 1 , 6 ]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 1.0608569471580214
Total Count: 30
Expected Count: 30
OKAY: True
----Done--- 7.321481995767062
Done!
-26 21 -9 5
You Can use this matrix now.
X \min = -26
X \text{ max} = 24
Y min=-9
Y \max = 6
And the Matrix Shape: 50 * 15
\{Window: 1 > X:[ -26 , -21 ] Y:[ -9 , -4 ]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
```

```
Found a sample of class: 0
Found Entropy: 1.0914145617941
\{\text{Window: 2 > X:[-26,-21] Y:[-4,1]}
Found Entropy: 0
\{\text{Window: 3 > X: [-26, -21] Y: [1, 6]}
Found Entropy: 0
<Window: 4 > X:[ -21 , -16 ] Y:[ -9 , -4 ]
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 1.0958871542125534
\{Window: 5 > X:[ -21 , -16 ] Y:[ -4 , 1 ]
Found Entropy: 0
<Window: 6 > X:[ -21 , -16 ] Y:[ 1 , 6 ]
Found Entropy: 0
\langle \text{Window: 7 > X:[-16,-11] Y:[-9,-4]}
Found Entropy: 0
<Window: 8 > X:[ -16 , -11 ] Y:[ -4 , 1 ]
Found Entropy: 0
<Window: 9 > X:[ -16 , -11 ] Y:[ 1 , 6 ]
Found Entropy: 0
\langle \text{Window: } 10 \rangle \text{ X: [} -11 , -6 ] \text{ Y: [} -9 , -4 ]
Found Entropy: 0
<Window: 11 > X:[ -11 , -6 ] Y:[ -4 , 1 ]
Found Entropy: 0
<Window: 12 > X:[ -11 , -6 ] Y:[ 1 , 6 ]
```

```
Found Entropy: 0
<Window: 13 > X:[ -6 , -1 ] Y:[ -9 , -4 ]
Found Entropy: 0
\{\text{Window: } 14 > X:[-6,-1] \ Y:[-4,1] \ \}
Found Entropy: 0
<Window: 15 > X:[ -6 , -1 ] Y:[ 1 , 6 ]
Found Entropy: 0
<Window: 16 > X:[ -1 , 4 ] Y:[ -9 , -4 ]
Found Entropy: 0
\{Window: 17 > X:[-1, 4] Y:[-4, 1]
Found Entropy: 0
<Window: 18 > X:[ -1 , 4 ] Y:[ 1 , 6 ]
Found Entropy: 0
<Window: 19 > X:[ 4 , 9 ] Y:[ -9 , -4 ]
Found Entropy: 0
<Window: 20 > X:[4,9] Y:[-4,1]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 1.077556327066801
<Window: 21 > X:[ 4 , 9 ] Y:[ 1 , 6 ]
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.0
\langle \text{Window}: 22 \rangle X: [9, 14] Y: [-9, -4]
Found Entropy: 0
<Window: 23 > X:[ 9 , 14 ] Y:[ -4 , 1 ]
```

```
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 1.0239287996389363
<Window: 24 > X:[ 9 , 14 ] Y:[ 1 , 6 ]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 1.0986122886681096
\langle \text{Window}: 25 \rangle X: [14, 19] Y: [-9, -4]
Found Entropy: 0
<Window: 26 > X:[ 14 , 19 ] Y:[ -4 , 1 ]
Found a sample of class: 2
Found Entropy: 0.0
<Window: 27 > X:[ 14 , 19 ] Y:[ 1 , 6 ]
Found a sample of class: 1
Found a sample of class: 1
```

```
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 1.085723054772177
\{Window: 28 > X:[19, 24] Y:[-9, -4]
Found Entropy: 0
<Window: 29 > X:[ 19 , 24 ] Y:[ -4 , 1 ]
Found Entropy: 0
<Window: 30 > X:[ 19 , 24 ] Y:[ 1 , 6 ]
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 2
Found Entropy: 0.9649629230074277
Total Count: 30
Expected Count: 30
OKAY: True
----Done---- 7.438085109160104
Done!
-26 21 -9 5
You Can use this matrix now.
```

```
X_{min} = -26
X_max = 24
Y_min = -9
Y \max = 6
And the Matrix Shape: 50 * 15
<Window: 1 > X:[ -26 , -21 ] Y:[ -9 , -4 ]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found Entropy: 1.0496717767488781
\{\text{Window: 2 > X:[-26,-21] Y:[-4,1]}
Found Entropy: 0
<Window: 3 > X:[ -26 , -21 ] Y:[ 1 , 6 ]
Found Entropy: 0
<Window: 4 > X:[ -21 , -16 ] Y:[ -9 , -4 ]
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
```

```
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 0
Found Entropy: 1.0601189359398382
\langle \text{Window}: 5 \rangle X: [-21, -16] Y: [-4, 1]
Found Entropy: 0
<Window: 6 > X:[ -21 , -16 ] Y:[ 1 , 6 ]
Found Entropy: 0
\{Window: 7 > X:[-16, -11] Y:[-9, -4]
Found Entropy: 0
<Window: 8 > X:[ -16 , -11 ] Y:[ -4 , 1 ]
Found Entropy: 0
<Window: 9 > X:[ -16 , -11 ] Y:[ 1 , 6 ]
Found Entropy: 0
\{Window: 10 > X:[ -11 , -6 ] Y:[ -9 , -4 ]
Found Entropy: 0
\langle \text{Window}: 11 \rangle X: [-11, -6] Y: [-4, 1]
Found Entropy: 0
<Window: 12 > X:[ -11 , -6 ] Y:[ 1 , 6 ]
Found Entropy: 0
<Window: 13 > X:[ -6 , -1 ] Y:[ -9 , -4 ]
Found Entropy: 0
\{\text{Window: } 14 > X:[-6,-1] \ Y:[-4,1] \ \}
Found Entropy: 0
<Window: 15 > X:[ -6 , -1 ] Y:[ 1 , 6 ]
Found Entropy: 0
<Window: 16 > X:[ -1 , 4 ] Y:[ -9 , -4 ]
Found Entropy: 0
<Window: 17 > X:[ -1 , 4 ] Y:[ -4 , 1 ]
Found Entropy: 0
<Window: 18 > X:[ -1 , 4 ] Y:[ 1 , 6 ]
Found Entropy: 0
<Window: 19 > X:[4, 9] Y:[-9, -4]
Found Entropy: 0
<Window: 20 > X:[4,9] Y:[-4,1]
Found a sample of class: 2
Found a sample of class: 0
```

```
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 1.024010220294295
<Window: 21 > X:[ 4 , 9 ] Y:[ 1 , 6 ]
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.0
<Window: 22 > X:[9, 14] Y:[-9, -4]
Found Entropy: 0
<Window: 23 > X:[ 9 , 14 ] Y:[ -4 , 1 ]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found Entropy: 0.9470571522825082
<Window: 24 > X:[9, 14] Y:[1, 6]
```

```
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 1.052922565938695
<Window: 25 > X:[ 14 , 19 ] Y:[ -9 , -4 ]
Found Entropy: 0
<Window: 26 > X:[ 14 , 19 ] Y:[ -4 , 1 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 27 > X:[ 14 , 19 ] Y:[ 1 , 6 ]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
```

```
Found a sample of class: 2
Found Entropy: 1.0708078595494446
<Window: 28 > X:[19, 24] Y:[-9, -4]
Found Entropy: 0
\{\text{Window: } 29 > X: [19, 24] Y: [-4, 1]
Found Entropy: 0
<Window: 30 > X:[ 19 , 24 ] Y:[ 1 , 6 ]
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.6869615765973234
Total Count: 30
Expected Count: 30
OKAY: True
----Done--- 6.891550087350982
Done!
-26 21 -9 5
You Can use this matrix now.
X_{min} = -26
X_max = 24
Y_min = -9
Y \max = 6
And the Matrix Shape: 50 * 15
<Window: 1 > X:[ -26 , -21 ] Y:[ -9 , -4 ]
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
```

```
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.9347570038626677
\langle \text{Window}: 2 \rangle X: [-26, -21] Y: [-4, 1]
Found Entropy: 0
<Window: 3 > X:[ -26 , -21 ] Y:[ 1 , 6 ]
Found Entropy: 0
\{Window: 4 > X:[-21, -16] Y:[-9, -4]
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found Entropy: 0.9551311954514641
\langle \text{Window}: 5 \rangle X: [-21, -16] Y: [-4, 1]
Found Entropy: 0
<Window: 6 > X:[ -21 , -16 ] Y:[ 1 , 6 ]
```

```
Found Entropy: 0
<Window: 7 > X:[ -16 , -11 ] Y:[ -9 , -4 ]
Found Entropy: 0
<Window: 8 > X:[ -16 , -11 ] Y:[ -4 , 1 ]
Found Entropy: 0
<Window: 9 > X:[ -16 , -11 ] Y:[ 1 , 6 ]
Found Entropy: 0
\langle \text{Window: } 10 \rangle \text{ X: [} -11 , -6 ] \text{ Y: [} -9 , -4 ]
Found Entropy: 0
\{Window: 11 > X:[-11, -6] Y:[-4, 1]
Found Entropy: 0
<Window: 12 > X:[ -11 , -6 ] Y:[ 1 , 6 ]
Found Entropy: 0
<Window: 13 > X:[ -6 , -1 ] Y:[ -9 , -4 ]
Found Entropy: 0
<Window: 14 > X:[ -6 , -1 ] Y:[ -4 , 1 ]
Found Entropy: 0
<Window: 15 > X:[ -6 , -1 ] Y:[ 1 , 6 ]
Found Entropy: 0
\{Window: 16 > X:[ -1 , 4 ] Y:[ -9 , -4 ]
Found Entropy: 0
\langle Window: 17 \rangle X: [-1, 4] Y: [-4, 1]
Found Entropy: 0
<Window: 18 > X:[ -1 , 4 ] Y:[ 1 , 6 ]
Found Entropy: 0
<Window: 19 > X:[ 4 , 9 ] Y:[ -9 , -4 ]
Found Entropy: 0
<Window: 20 > X:[4,9] Y:[-4,1]
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
```

```
Found a sample of class: 1
Found Entropy: 1.0327438135557083
<Window: 21 > X:[ 4 , 9 ] Y:[ 1 , 6 ]
Found a sample of class: 0
Found a sample of class: 2
Found Entropy: 0.6931471805599453
<Window: 22 > X:[ 9 , 14 ] Y:[ -9 , -4 ]
Found Entropy: 0
<Window: 23 > X:[ 9 , 14 ] Y:[ -4 , 1 ]
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 1
Found Entropy: 0.8815322611881636
<Window: 24 > X:[ 9 , 14 ] Y:[ 1 , 6 ]
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
```

```
Found a sample of class: 0
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 1.0789922078775833
<Window: 25 > X:[ 14 , 19 ] Y:[ -9 , -4 ]
Found Entropy: 0
<Window: 26 > X:[ 14 , 19 ] Y:[ -4 , 1 ]
Found a sample of class: 0
Found Entropy: 0.0
<Window: 27 > X:[ 14 , 19 ] Y:[ 1 , 6 ]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 2
Found a sample of class: 2
Found a sample of class: 2
Found Entropy: 0.9649629230074277
<Window: 28 > X:[19, 24] Y:[-9, -4]
Found Entropy: 0
<Window: 29 > X:[ 19 , 24 ] Y:[ -4 , 1 ]
Found Entropy: 0
<Window: 30 > X:[ 19 , 24 ] Y:[ 1 , 6 ]
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
```

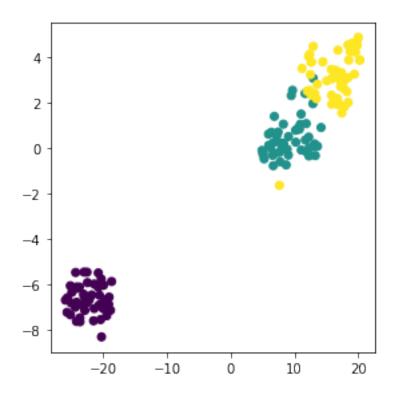
Found a sample of class: 0
Found a sample of class: 0
Found a sample of class: 1
Found a sample of class: 0

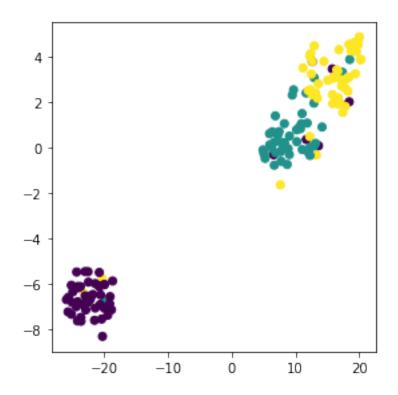
Found Entropy: 0.6365141682948128

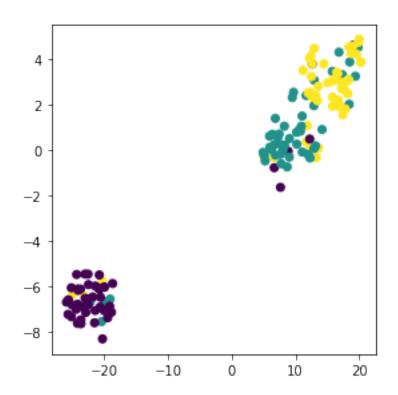
Total Count: 30 Expected Count: 30

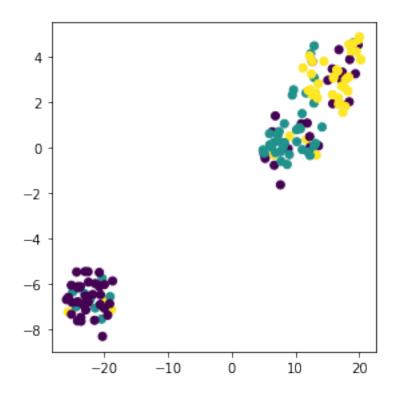
OKAY: True

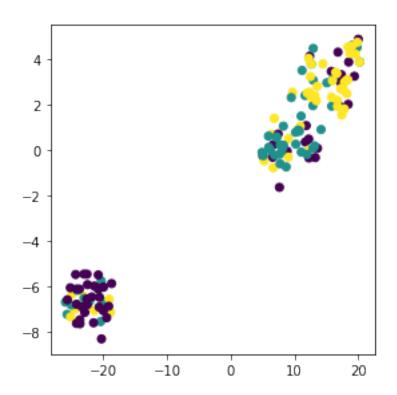
----Done--- 7.177780753797773

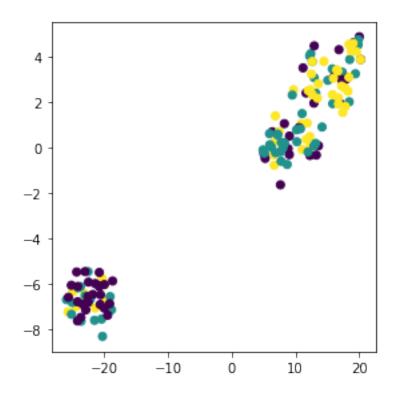


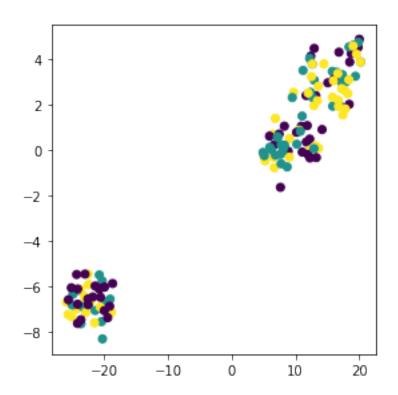


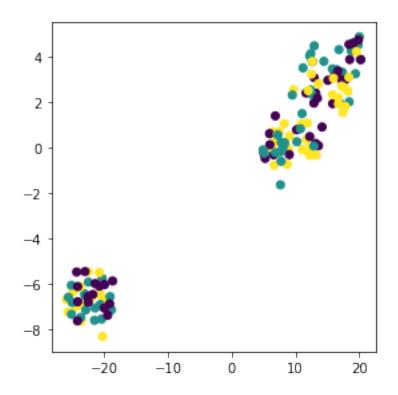


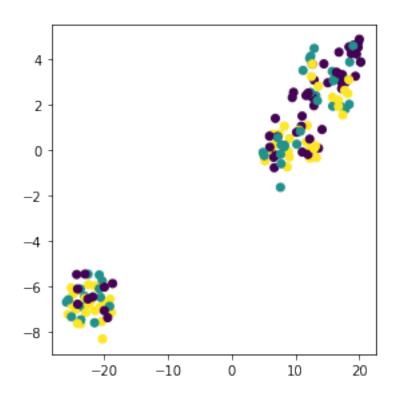


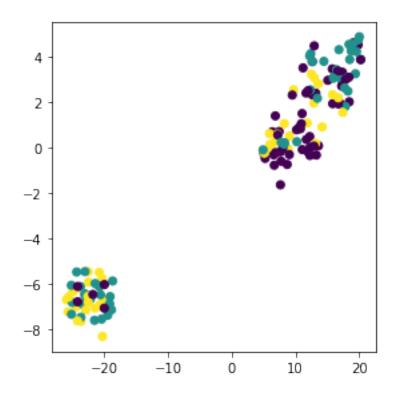


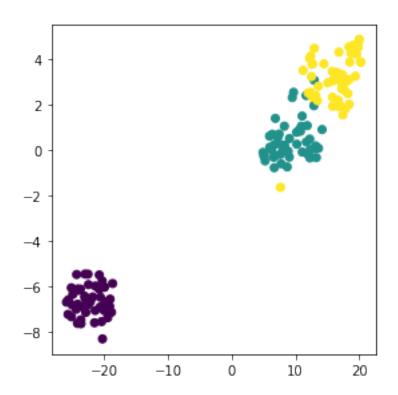


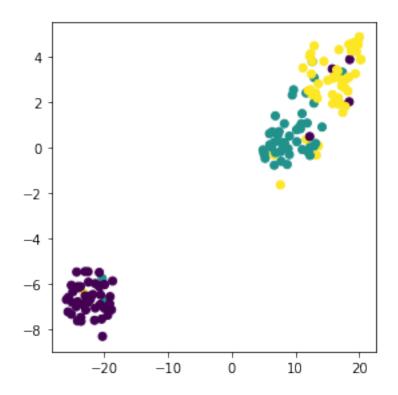


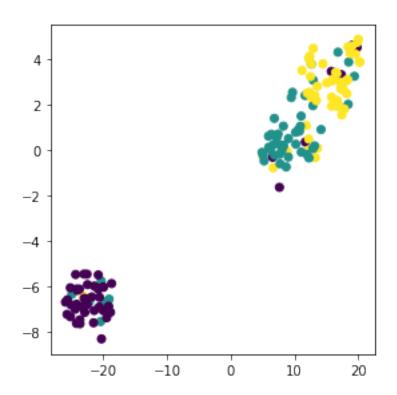


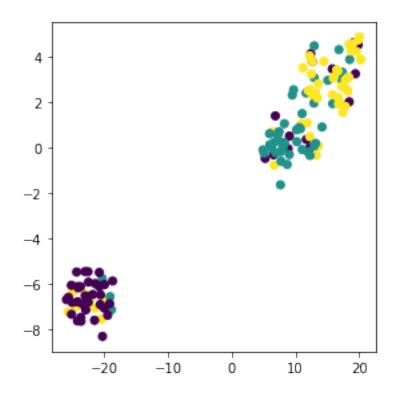


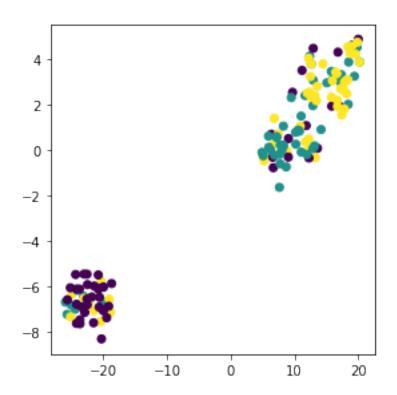


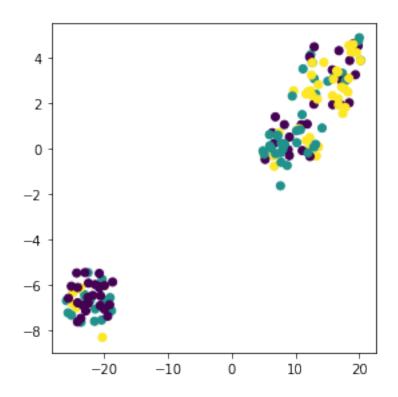


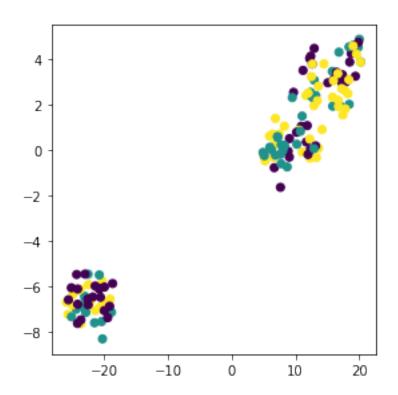


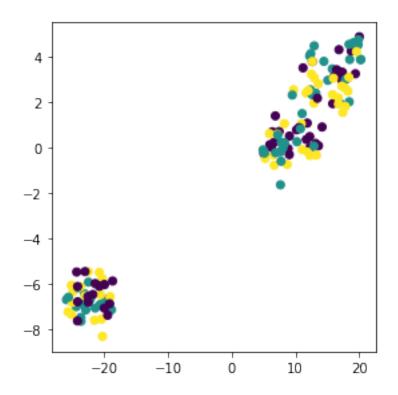


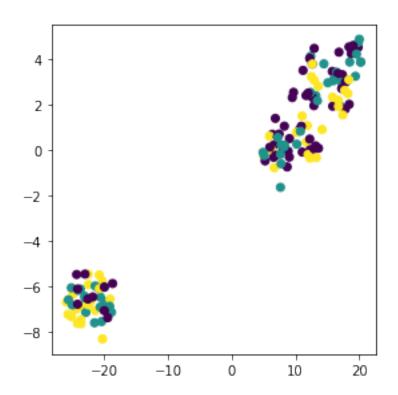


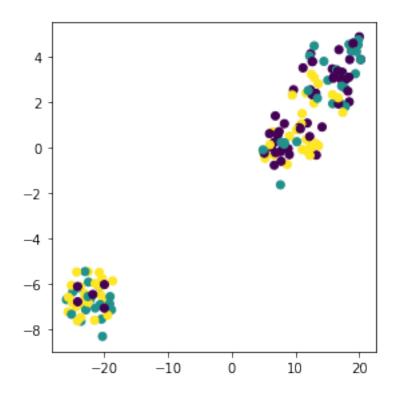


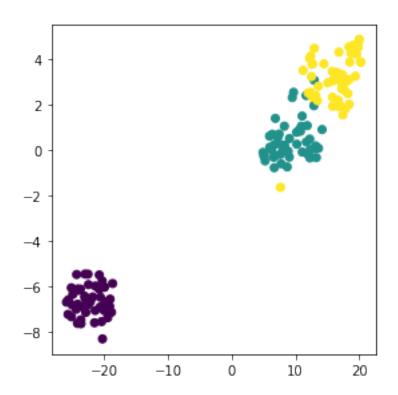


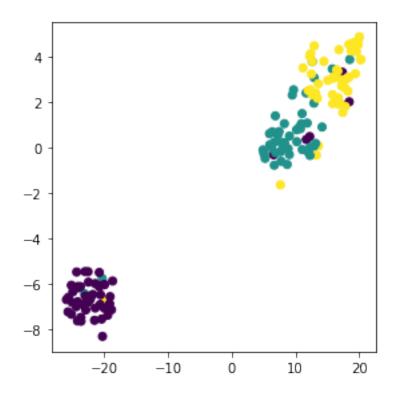


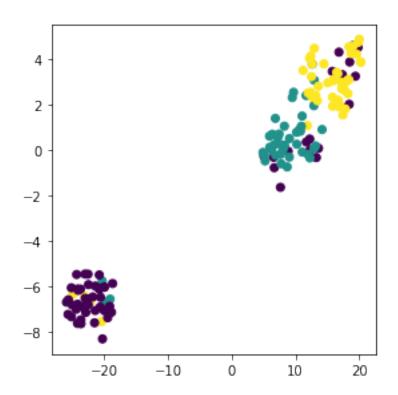


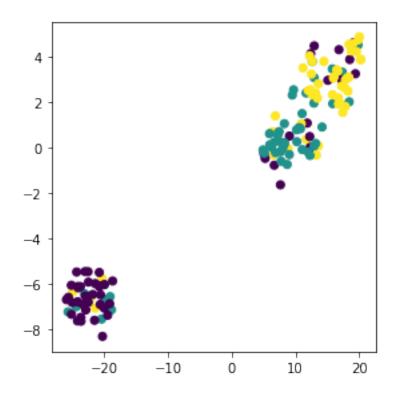


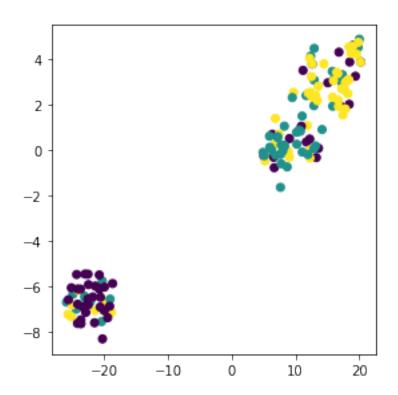


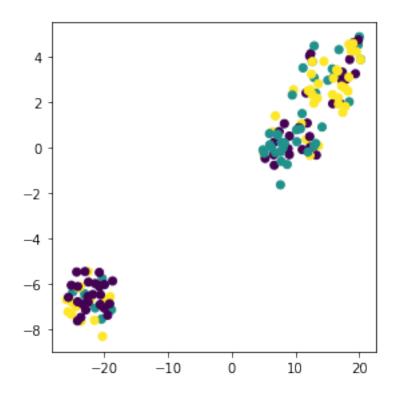


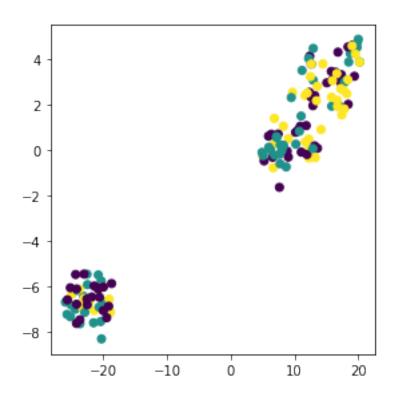


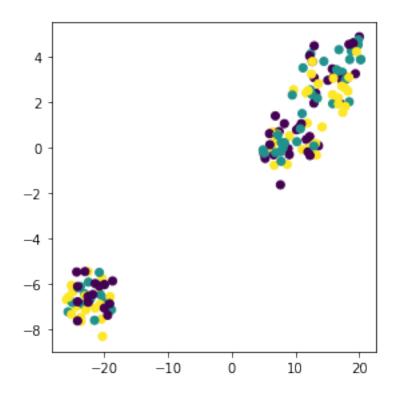


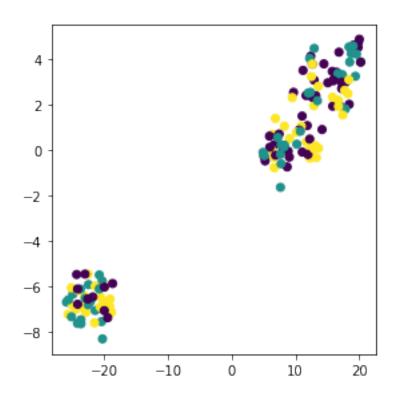


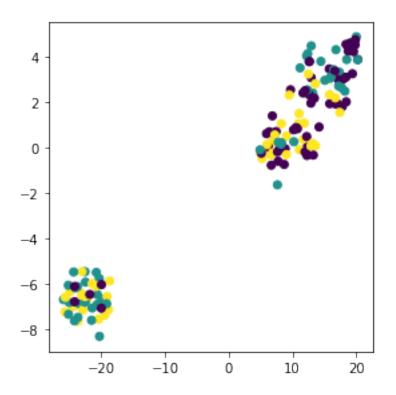






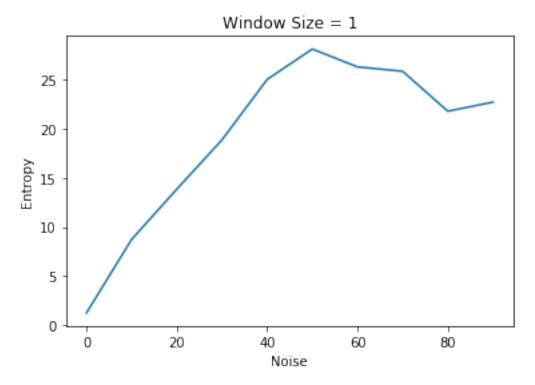


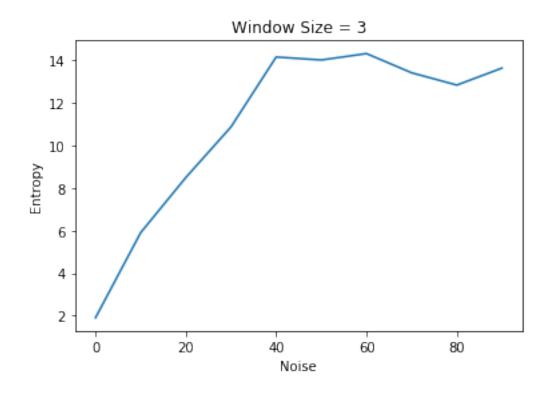


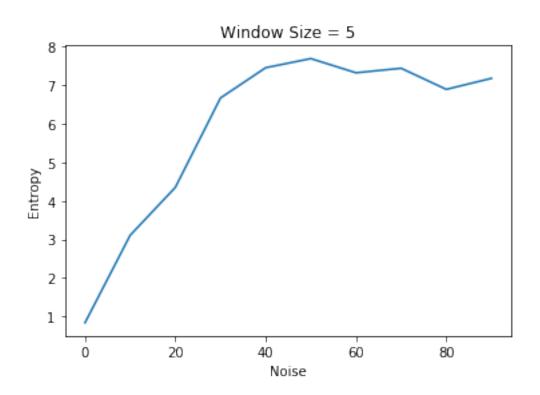


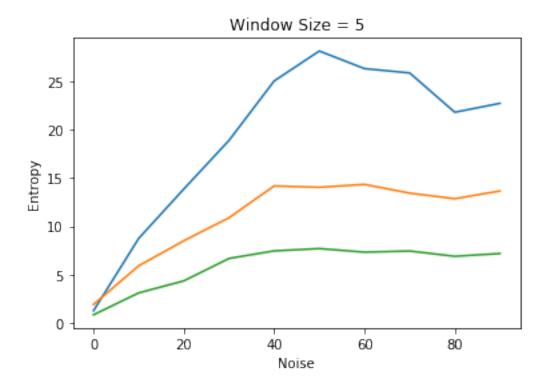
```
In [126]: dataSet
Out[126]: [[[], []],
           [[0, 10, 20, 30, 40, 50, 60, 70, 80, 90],
            [1.2554823251787535,
             8.73851878067532,
             13.853681503172105,
             18.878635726235473,
             25.02940503282032,
             28.127269243771856,
             26.30719326841124,
             25.858124148322695,
             21.792007983531576,
             22.716655925390782]],
           [[], []],
           [[0, 10, 20, 30, 40, 50, 60, 70, 80, 90],
            [1.9059782130166705,
             5.906832364815045,
             8.501479237313205,
             10.879963858860972,
             14.168158576926993,
             14.028571586277163,
             14.32908036737314,
             13.426159812900783,
```

```
12.847992308871694,
             13.64677921343577]],
           [[], []],
           [[0, 10, 20, 30, 40, 50, 60, 70, 80, 90],
            [0.8377336454040922,
             3.1059009623027247,
             4.348245698116212,
             6.66788264811653,
             7.452498242994488,
             7.6894883073824065,
             7.321481995767062,
             7.438085109160104,
             6.891550087350982,
             7.177780753797773]]]
In [131]: print("The final plots are")
          def plotter(i):
              plt.plot(dataSet[i][0],dataSet[i][1])
              plt.title('Window Size = ' + str(i))
              plt.xlabel('Noise')
              plt.ylabel('Entropy')
The final plots are
In [130]: plotter(1)
          plotter(3)
          plotter(5)
```









In [133]: # Done!