```
import pandas as pd
 In [1]:
 In [2]:
           import numpy as np
 In [7]: df=pd.read csv("/home/ubuntu/Downloads/StudentsPerformanceTest1.csv"
 In [8]:
           df
 Out[8]:
                          math
                                    reading
                                                writing
                                                           Placement
                                                                         placement offer
                                                                                        Region
               gender
                          score
                                      score
                                                 score
                                                               Score
                                                                                 count
            0
                            72
                                        72
                                                  74.0
                                                                 78.0
               female
                                                                                     1
                                                                                         Pune
                                                                                     2
            1
               female
                            69
                                        90
                                                  88.0
                                                                 NaN
                                                                                            na
                                                                                     2
            2
                            90
                                        95
                                                  93.0
                                                                 74.0
                                                                                        Nashik
               female
                                                                 78.0
                                                                                     1
            3
                 male
                            47
                                        57
                                                  NaN
                                                                                           Na
            4
                 male
                            na
                                        78
                                                  75.0
                                                                 81.0
                                                                                     3
                                                                                         Pune
            5
               female
                            71
                                                  78.0
                                                                 70.0
                                                                                     4
                                        Na
                                                                                            na
            6
                male
                            12
                                        44
                                                  52.0
                                                                 12.0
                                                                                     2
                                                                                        Nashik
            7
                           NaN
                                        65
                                                  67.0
                                                                 49.0
                                                                                     1
                                                                                         Pune
                 male
            8
                             5
                                        77
                                                  89.0
                                                                 55.0
                                                                                     0
                                                                                          NaN
                 male
 In [9]: |df.isnull
 Out[9]:
          <bound method DataFrame.isnull of</pre>
                                                         gender math score reading scor
              writing score
                                 Placement Score
                                 72
                                                  72
                                                                  74.0
                                                                                       78.0
               female
           1
               female
                                 69
                                                  90
                                                                  88.0
                                                                                        NaN
           2
               female
                                 90
                                                  95
                                                                  93.0
                                                                                       74.0
           3
                 male
                                 47
                                                  57
                                                                                       78.0
                                                                   NaN
           4
                 male
                                 na
                                                  78
                                                                  75.0
                                                                                       81.0
           5
               female
                                 71
                                                  Na
                                                                  78.0
                                                                                       70.0
           6
                 male
                                 12
                                                  44
                                                                  52.0
                                                                                       12.0
           7
                 male
                                NaN
                                                  65
                                                                  67.0
                                                                                       49.0
           8
                 male
                                  5
                                                  77
                                                                  89.0
                                                                                       55.0
               placement offer count
                                           Region
           0
                                       1
                                              Pune
           1
                                       2
                                                na
           2
                                       2
                                           Nashik
           3
                                       1
                                                Na
           4
                                       3
                                              Pune
           5
                                       4
                                                na
           6
                                       2
                                           Nashik
           7
                                       1
                                             Pune
           8
                                       0
                                               NaN
In [10]: series=pd.isnull(df["math score"])
```

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]:	gender	math score	reading score	writing score	Placement Score	placement offer count	Region
7	male	NaN	65	67.0	49.0	1	Pune
]: df.	notnull	. ( )					
2]:	gender	math score	reading score	writing score	Placement Score	placement offer count	Region
0	True	True	True	True	True	True	True
1	True	True	True	True	False	True	True
2	True	True	True	True	True	True	True
3	True	True	True	False	True	True	True
4	True	True	True	True	True	True	True
5	True	True	True	True	True	True	True
6	True	True	True	True	True	True	True
7	True	False	True	True	True	True	True
8	True	True	True	True	True	True	False
: fro	om sklea	arn <b>impor</b>	True t preproce .LabelEnco	essing	True	True	False
: fro	om sklea = prepr	arn <b>impor</b> rocessing	t preproce	essing oder()		True	False
: <b>fro</b> le	om sklea = prepr	arn <b>impor</b> rocessing	t preproce .LabelEnco	essing oder()		True	False
: fro le : df[ : new	om sklea = prepr 'gender	arn <b>impor</b> rocessing	t preproce .LabelEnco	essing oder()		True	False
: fro le : df[ : new	om sklea = prepr 'gender	ern impor rocessing r']=le.fi	t preproce .LabelEnco t_transfor	essing oder() rm(df['gen	der'])	placement offer	False
: from the second secon	om sklea = prepr 'gender vdf=df	math score	t preproce .LabelEnco t_transfor  reading score	essing oder() rm(df['gen writing score	der']) Placement Score		Region
: fro le  : df[  : new  : df	om sklea = prepr 'gender vdf=df gender	math score	t preproce .LabelEnco t_transfor  reading score	essing oder() rm(df['gen writing score	Placement Score	placement offer count	<b>Region</b> Pune
tropic df[	om sklea = prepr 'gender odf=df	math score	t preproce .LabelEnco t_transfor  reading score  72 90	essing oder() rm(df['gen writing score 74.0 88.0	Placement Score 78.0 NaN	placement offer count  1 2	Region Pune na
: from le : df[:: new :: df :: ]	m sklea = prepr 'gender df=df gender 0 0	math score  72 69 90	t preproce LabelEnco t_transfor  reading score  72 90 95	writing score 74.0 88.0 93.0	Placement Score 78.0 NaN 74.0	placement offer count  1 2 2	Region Pune na Nashik
: from the left in	m sklea = prepr 'gender df=df gender 0 0 0	math score  72 69 90 47	reading score  72 90 95 57	writing score 74.0 88.0 93.0 NaN	Placement Score 78.0 NaN 74.0 78.0	placement offer count  1 2 2 1	Region Pune na Nashik Na
: from le : df[: new : df : ]	m sklea = prepr 'gender /df=df gender 0 0 0	math score 72 69 90 47 na	reading score  72 90 95 57 78	writing score 74.0 88.0 93.0 NaN 75.0	Placement Score 78.0 NaN 74.0 78.0 81.0	placement offer count  1 2 2 1 3	Region Pune na Nashik Na Pune
: from le : df[: new : df : ]	m sklea = prepr 'gender df=df gender 0 0 0 1 1	math score  72 69 90 47 na 71	reading score  72 90 95 57 78 Na	writing score 74.0 88.0 93.0 NaN 75.0 78.0	Placement Score 78.0 NaN 74.0 78.0 81.0 70.0	placement offer count  1 2 2 1 3 4	Region Pune na Nashik Na Pune na
: fro le : df[ : new : df :	m sklea = prepr 'gender /df=df gender 0 0 0	math score 72 69 90 47 na	reading score  72 90 95 57 78	writing score 74.0 88.0 93.0 NaN 75.0	Placement Score 78.0 NaN 74.0 78.0 81.0	placement offer count  1 2 2 1 3	Region Pune na Nashik Na Pune

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