questaoum

October 17, 2018

- 1 Questão 1 Prova 2 de Inteligência Artificial
- 2 Lucas Nóbrega e Nathália de Vasconcelos
- 3 1. Pré-processamento de dados
- 3.0.1 Importando as bibliotecas necessárias, bem como o dataset da questão.

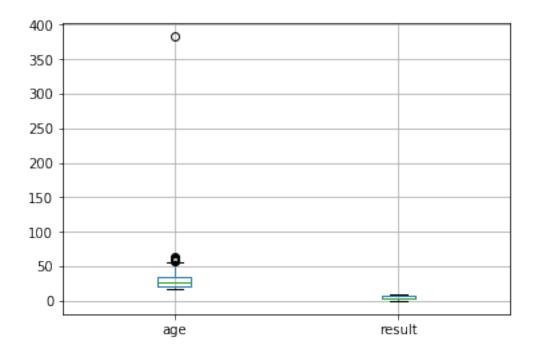
```
In [1]: import scipy.io.arff as io
        import pandas as pd
        import matplotlib.pyplot as plt
        import numpy as np
        from sklearn.preprocessing import LabelEncoder, OneHotEncoder
        from sklearn.model_selection import train_test_split
        # Read arff data
        with open("Autism-Adult-Data.arff") as f:
            values = io.loadarff(f)
            f.close()
        # Dataset em formato DataFrame para manipulá-lo usando a biblioteca pandas
        dataset = pd.DataFrame(data=values[0])
        # Entradas e saída do dataset
        X = dataset.iloc[:, [10,11,12,13,14,17,20]].values
        y = dataset.iloc[:, 20].values
        # Colunas específicas
        age = dataset.iloc[:, 10].values
        gender = dataset.iloc[:, 11].values
        ethnicity = dataset.iloc[:, 12].values
        jaundice = dataset.iloc[:, 13].values
        austim = dataset.iloc[:, 14].values
        result = dataset.iloc[:, 17].values
        classASD = dataset.iloc[:, 20].values
```

3.0.2 Dados estão faltando na coluna ethnicity, logo, precisam ser substituídos por NaN e em seguida a Moda é calculada. Após o seu cálculo, os dados que constarem como NaN serão trocados pela Moda.

```
In [2]: dataset['ethnicity'] = dataset['ethnicity'].replace(b'?', np.nan)
In [3]: dataset.ethnicity.mode()
Out[3]: 0
            b'White-European'
        dtype: object
In [4]: dataset['ethnicity'] = dataset['ethnicity'].replace(np.nan, b'White-European')
3.0.3 O mesmo vale para a coluna relation.
In [5]: dataset.relation.mode()
Out[5]: 0
             b'Self'
        dtype: object
In [6]: dataset['relation'] = dataset['relation'].replace(b'?', b'Self')
3.0.4 Configurando a tabela do dataset para aparecer completamente quando um print() for
     utilizado.
In [7]: print(pd.options.display.max_columns, pd.options.display.max_rows)
        pd.options.display.max_columns = 22
        pd.options.display.max_rows = 703
20 60
```

3.0.5 Ao plotar os dados dos nossos atributos numéricos, percebemos que a idade 383.0 é um outlier. Precisamos tratar isto.

```
In [8]: dataset.boxplot()
Out[8]: <matplotlib.axes._subplots.AxesSubplot at 0x7f8d39385eb8>
```



3.0.6 Alguns detalhes do atributo age e result. Na coluna 'age', percebe-se que existem dois dados faltando. Além disso, a idade 383.0 foi considerada absurda. Com base nisto, precisamos remover esse outlier e substituí-lo pela mediana das idades existentes.

In [9]: dataset.describe()

Out[9]:		age	result
	count	702.000000	704.000000
	mean	29.698006	4.875000
	std	16.507465	2.501493
	min	17.000000	0.000000
	25%	21.000000	3.000000
	50%	27.000000	4.000000
	75%	35.000000	7.000000
	max	383.000000	10.000000

3.0.7 Localizando a instância que possui o outlier...

```
In [10]: dataset.loc[dataset['age'] == 383.00]
Out[10]:
           A1_Score A2_Score A3_Score A4_Score A5_Score A6_Score A7_Score A8_Score \
                        b'0'
                                 b'0'
                                          b'0'
                                                   b'0'
                                                            b'0'
        52
               b'1'
                                                                     b'0'
                                                                              b'0'
           A9_Score A10_Score
                                 age gender
                                               ethnicity jundice austim \
        52
                         b'0' 383.0
                                       b'f' b'Pasifika'
                                                           b'no' b'no'
```

```
contry_of_res used_app_before result age_desc relation \
52 b"'New Zealand'" b'no' 1.0 b"'18 and more'" b'Self'

Class/ASD
52 b'NO'
```

3.0.8 Tratando as instâncias de age vazias...

```
In [11]: dataset['age'] = dataset['age'].replace(b'n', b'?')
In [12]: aux = np.array(dataset['age'])
```

3.0.9 Substituindo o outlier pela mediana da age, ignorando as instâncias ainda vazias...

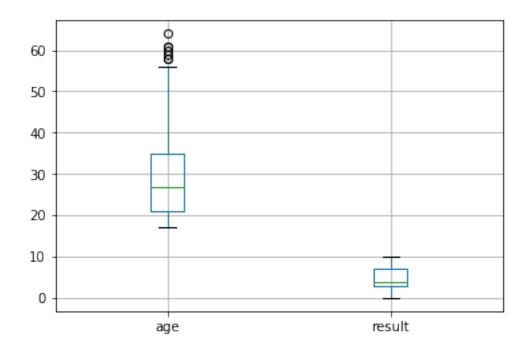
```
In [13]: dataset['age'] = dataset['age'].replace(383, np.nanmedian(aux))
In [14]: dataset.describe()
Out[14]:
                                result
         count 702.000000 704.000000
                 29.190883
                              4.875000
         mean
                  9.704950
         std
                              2.501493
         min
                 17.000000
                              0.000000
         25%
                 21.000000
                              3.000000
         50%
                 27.000000
                              4.000000
         75%
                 35.000000
                              7.000000
                 64.000000
                             10.000000
         max
```

3.0.10 Encontrando as instâncias vazias e substituindo-as pela mediana depois que o outlier foi tratado.

```
In [15]: dataset['age'] = dataset['age'].replace(np.nan, np.nanmedian(aux))
```

3.0.11 Novo boxplot dos atributos age e result. Perceba que agora não temos mais a presença do far outlier.

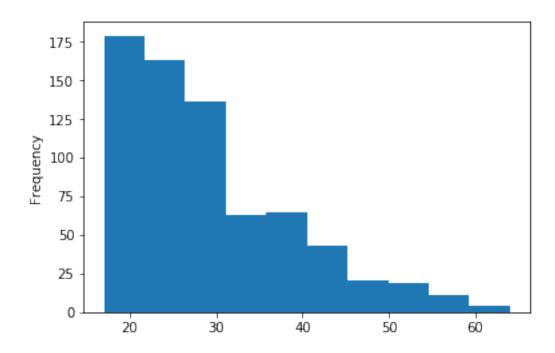
```
In [16]: dataset.boxplot()
Out[16]: <matplotlib.axes._subplots.AxesSubplot at 0x7f8cff507748>
```



3.0.12 Plotando histogramas das colunas age e result...

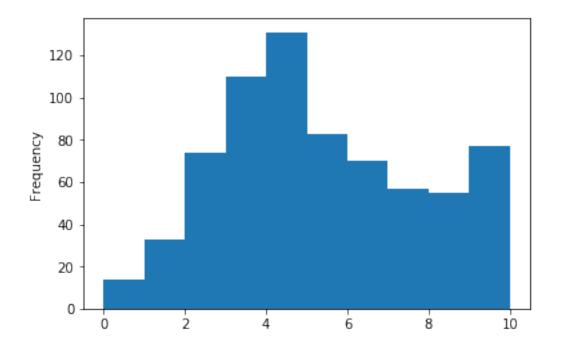
In [17]: dataset['age'].plot(kind='hist')

Out[17]: <matplotlib.axes._subplots.AxesSubplot at 0x7f8cff4762e8>



In [18]: dataset['result'].plot(kind='hist')

Out[18]: <matplotlib.axes._subplots.AxesSubplot at 0x7f8cff3f71d0>



3.0.13 Checando se ainda existe alguma instância com atributos vazios no dataset.

In [19]: dataset.isnull().sum()

Out[19]: A1_Score 0 A2_Score 0 A3_Score 0 A4_Score A5_Score 0 A6_Score 0 A7_Score 0 0 A8_Score A9_Score 0 A10_Score 0 age 0 gender 0 ethnicity 0 jundice 0 austim 0 contry_of_res 0
used_app_before 0
result 0
age_desc 0
relation 0
Class/ASD 0
dtype: int64

3.0.14 Substituindo as interrogações por nan a fim de que o método isnull() possa realmente checar se existe algum dado faltando no dataset...

In [20]: dataset.replace(b'?', np.nan)

Out[20]:	A1_Score	A2_Score	A3_Score	A4_Score	A5_Score	A6_Score	A7_Score	A8_Score	\
0	b'1'	b'1'	b'1'	b'1'	b'0'	b'0'	b'1'	b'1'	
1	b'1'	b'1'	b'0'	b'1'	b'0'	b'0'	b'0'	b'1'	
2	b'1'	b'1'	b'0'	b'1'	b'1'	b'0'	b'1'	b'1'	
3	b'1'	b'1'	b'0'	b'1'	b'0'	b'0'	b'1'	b'1'	
4	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'	
5	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'	b'1'	b'1'	
6	b'0'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'	
7	b'1'	b'1'	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'	
8	b'1'	b'1'	b'0'	b'0'	b'1'	b'0'	b'0'	b'1'	
9	b'1'	b'1'	b'1'	b'1'	b'0'	b'1'	b'1'	b'1'	
10	b'1'								
11	b'0'	b'1'	b'0'	b'1'	b'1'	b'1'	b'1'	b'0'	
12	b'0'	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'	b'0'	
13	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'	b'1'	
14	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'	b'1'	
15	b'1'	b'1'	b'0'	b'1'	b'1'	b'0'	b'0'	b'1'	
16	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'	b'1'	
17	b'0'	b'1'							
18	b'0'	b'0'	b'1'	b'0'	b'1'	b'1'	b'0'	b'0'	
19	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'	b'1'	
20	b'0'	b'1'	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'	
21	b'0'								
22	b'0'	b'0'	b'0'	b'1'	b'0'	b'0'	b'1'	b'1'	
23	b'0'	b'1'							
24	b'1'	b'1'	b'1'	b'1'	b'0'	b'0'	b'0'	b'1'	
25	b'0'	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'	b'1'	
26	b'0'	b'1'							
27	b'0'	b'1'							
28	b'0'	b'1'							
29	b'0'	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	
30	b'0'								
31	b'1'	b'0'	b'0'	b'1'	b'1'	b'1'	b'1'	b'1'	
32	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'	b'1'	b'0'	
33	b'1'								

34	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'
35	b'0'	b'0'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'
36	b'0'	b'1'	b'1'	b'0'	b'1'	b'0'	b'0'	b'1'
37	b'1'	b'0'	b'1'	b'1'	b'1'	b'1'	b'0'	b'0'
38	b'1'	b'0'	b'0'	b'1'	b'1'	b'1'	b'1'	b'0'
39	b'1'	b'0'	b'1'	b'1'	b'0'	b'1'	b'1'	b'1'
40	b'1'	b'0'	b'1'	b'1'	b'1'	b'0'	b'1'	b'1'
41	b'0'	b'0'	b'0'	b'0'	b'1'	b'1'	b'0'	b'0'
42	b'0'	b'0'	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'
43	b'0'	b'1'	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'
44	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'	b'1'
45	b'1'	b'0'	b'1'	b'1'	b'1'	b'1'	b'0'	b'1'
46	b'1'	b'1'	b'1'	b'1'	b'0'	b'1'	b'0'	b'0'
47	b'0'	b'0'	b'1'	b'1'	b'1'	b'0'	b'1'	b'0'
48	b'0'	b'1'	b'1'	b'0'	b'0'	b'1'	b'0'	b'0'
49	b'1'	b'1'	b'0'	b'0'	b'0'	b'1'	b'1'	b'1'
50	b 1 b'1'	b'0'	b'0'	b 0 b'1'	b'0'	b'0'	b'0'	b'1'
	b'1'	b'1'	ь о b'1'	b'1'	b'1'	b'1'	b'1'	b'1'
51	b'1'		b'0'			b'0'		b'0'
52		b'0'		b'0'	b'0'		b'0'	
53	b'1'	b'0'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'
54	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'
55	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'	b'1'
56	b'1'	b'0'	b'1'	b'1'	b'1'	b'1'	b'0'	b'1'
57	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'	b'1'
58	b'1'	b'0'	b'0'	b'0'	b'1'	b'0'	b'0'	b'1'
59	b'1'	b'1'	b'1'	b'1'	b'0'	b'0'	b'0'	b'1'
60	b'1'	b'0'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'
61	b'1'	b'0'	b'1'	b'1'	b'0'	b'1'	b'1'	b'1'
62	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'
63	b'1'	b'0'	b'0'	b'1'	b'1'	b'0'	b'0'	b'1'
64	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'
65	b'1'	b'0'	b'1'	b'0'	b'0'	b'0'	b'0'	b'1'
66	b'0'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
67	b'1'	b'0'	b'1'	b'0'	b'1'	b'1'	b'1'	b'1'
68	b'1'	b'0'	b'0'	b'0'	b'1'	b'0'	b'1'	b'0'
69	b'0'	b'0'	b'0'	b'0'	b'1'	b'0'	b'0'	b'0'
70	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'	b'1'	b'1'
71	b'0'	b'0'	b'1'	b'1'	b'0'	b'0'	b'0'	b'1'
72	b'1'	b'0'	b'1'	b'1'	b'0'	b'0'	b'1'	b'1'
73	b'1'	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'	b'1'
74	b'0'	b'0'	b'1'	b'1'	b'1'	b'0'	b'0'	b'1'
75	b'1'	b'1'	b'0'	b'1'	b'1'	b'1'	b'1'	b'1'
76	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'	b'1'
77	b'1'	b'1'	b'0'	b'1'	b'1'	b'1'	b'1'	b'1'
78	b'1'	b'0'	b'0'	b'1'	b'1'	b'0'	b'0'	b'0'
79	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'
80	b'0'	b'0'	b'1'	b'1'	b'0'	b'0'	b'1'	b'1'
81	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'	b'0'

82	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'
83	b'0'	b'0'	b'1'	b'0'	b'1'	b'0'	b'0'	b'1'
84	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'
85	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
86	b'1'	b'0'	b'0'	b'1'	b'1'	b'1'	b'1'	b'1'
87	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'
88	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
89	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'	b'1'
90	b'1'	b'0'	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'
91	b'0'	b'1'	b'0'	b'0'	b'1'	b'0'	b'1'	b'0'
92	b'0'	b'0'	b'0'	b'1'	b'1'	b'1'	b'0'	b'1'
93	b'1'	b'1'	b'1'	b'0'	b'1'	b'1'	b'1'	b'0'
94	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'	b'0'	b'1'
95	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
96	b'1'	b'0'	b'0'	b'0'	b'1'	b'0'	b'1'	b'1'
97	b'1'	b'0'	b'0'	b'1'	b'1'	b'0'	b'1'	b'0'
98	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
99	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'
100	b'0'	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'	b'1'
101	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
101	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'
102	b 1 b'1'	b'1'	b'0'	b'0'	b'1'	b'0'	b'1'	b 0 b'1'
103	b'0'	b'0'	b'0'	b'0'	b'1'	b 0 b'1'	b'0'	b'1'
104	ъо ъ'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'
	b'0'	b'0'	b'0'	b'0'		b'0'	b'0'	b'0' b'1'
106	b'0' b'1'			b'0' b'1'	b'1'			
107		b'1'	b'0'		b'1'	b'0'	b'1'	b'1'
108	b'1'	b'0'	b'0'	b'1'	b'1'	b'1'	b'1'	b'0'
109	b'1'	b'0'	b'0'	b'0'	b'0'	b'1'	b'1'	b'0'
110	b'1'	b'0'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'
111	b'0'	b'0'	b'1'	b'1'	b'0'	b'1'	b'0'	b'1'
112	b'1'	b'0'	b'0'	b'0'	b'1'	b'0'	b'0'	b'0'
113	b'0'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
114	b'1'	b'1'	b'0'	b'1'	b'1'	b'1'	b'1'	b'1'
115	b'1'	b'0'	b'1'	b'1'	b'1'	b'1'	b'0'	b'1'
116	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'	b'1'
117	b'1'	b'1'	b'1'	b'0'	b'1'	b'0'	b'1'	b'1'
118	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'	b'1'
119	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'	b'0'
120	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'	b'1'
121	b'1'	b'0'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'
122	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'
123	b'1'	b'0'	b'0'	b'1'	b'1'	b'1'	b'1'	b'1'
124	b'1'	b'0'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'
125	b'1'	b'1'	b'0'	b'0'	b'1'	b'1'	b'1'	b'1'
126	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'
127	b'1'	b'0'	b'0'	b'1'	b'1'	b'1'	b'0'	b'1'
128	b'1'	b'0'	b'1'	b'1'	b'0'	b'0'	b'1'	b'0'
129	b'1'	b'0'	b'0'	b'0'	b'1'	b'0'	b'0'	b'0'

130	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
131	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
132	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
133	b'1'	b'0'	b'1'	b'1'	b'0'	b'0'	b'0'	b'1'
134	b'0'	b'1'	b'0'	b'0'	b'1'	b'1'	b'0'	b'1'
135	b'1'	b'0'	b'1'	b'1'	b'0'	b'0'	b'0'	b'1'
136	b'0'	b'1'	b'1'	b'0'	b'0'	b'1'	b'0'	b'0'
137	b'0'	b'0'	b'0'	b'0'	b'1'	b'0'	b'0'	b'0'
138	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'	b'0'
139	b'0'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'
140	b'0'	b'0'	b'1'	b'1'	b'0'	b'0'	b'0'	b'1'
140	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
								b'1'
142	b'1'	b'0'	b'1'	b'0'	b'0'	b'0'	b'0'	b'1'
143	b'1'	b'0'	b'0' b'0'	b'1'	b'1'	b'0'	b'0'	
144	b'0'	b'0'		b'0'	b'0'	b'0'	b'0'	b'1'
145	b'1'	b'0'	b'0'	b'1'	b'1'	b'1'	b'1'	b'1'
146	b'1'	b'0'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'
147	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'
148	b'1'	b'1'	b'0'	b'0'	b'1'	b'1'	b'1'	b'1'
149	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'	b'1'	b'1'
150	b'0'	b'0'	b'0'	b'0'	b'1'	b'0'	b'0'	b'1'
151	b'0'	b'1'	b'1'	b'1'	b'1'	b'0'	b'1'	b'1'
152	b'1'	b'1'	b'0'	b'0'	b'1'	b'0'	b'0'	b'0'
153	b'0'	b'0'	b'1'	b'0'	b'1'	b'0'	b'1'	b'0'
154	b'1'	b'0'	b'0'	b'0'	b'1'	b'0'	b'1'	b'0'
155	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'	b'1'
156	b'1'	b'0'	b'0'	b'0'	b'0'	b'1'	b'0'	b'1'
157	b'0'	b'1'	b'0'	b'0'	b'1'	b'0'	b'0'	b'1'
158	b'1'	b'0'	b'0'	b'1'	b'0'	b'0'	b'0'	b'0'
159	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'	b'1'
160	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'
161	b'0'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
162	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
163	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
164	b'1'	b'0'	b'1'	b'0'	b'1'	b'0'	b'1'	b'1'
165	b'1'	b'0'	b'0'	b'0'	b'1'	b'0'	b'1'	b'1'
166	b'0'	b'0'	b'1'	b'0'	b'0'	b'0'	b'0'	b'1'
167	b'1'	b'0'	b'0'	b'0'	b'1'	b'0'	b'1'	b'1'
168	b'0'	b'0'	b'1'	b'1'	b'1'	b'0'	b'0'	b'1'
169	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'	b'0'	b'1'
170	b'1'	b'0'	b'1'	b'1'	b'0'	b'0'	b'1'	b'1'
171	b'1'	b'1'	b'0'	b'1'	b'0'	b'0'	b'1'	b'0'
172	b'0'	b'0'	b'1'	b'1'	b'1'	b'0'	b'0'	b'0'
173	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
174	b'1'	b'0'	b'0'	b'1'	b'0'	b'0'	b'0'	b'1'
175	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'	b'1'	b'1'
176	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'	b'1'
177	b'0'	b'0'	b'1'	b'1'	b'1'	b'0'	b'0'	b'1'
±11	5 0	5 0	D I	D I	D I	5 0	5 0	D I

178	b'1'	b'0'	b'1'	b'0'	b'1'	b'0'	b'0'	b'1'
179	b'1'	b'0'	b'1'	b'0'	b'1'	b'0'	b'1'	b'0'
180	b'1'	b'0'	b'0'	b'0'	b'1'	b'0'	b'1'	b'0'
181	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'	b'0'	b'0'
182	b'0'	b'1'	b'0'	b'1'	b'1'	b'1'	b'0'	b'1'
183	b'0'	b'0'	b'1'	b'1'	b'1'	b'0'	b'0'	b'0'
184	b'0'	b'0'	b'1'	b'1'	b'1'	b'0'	b'1'	b'0'
185	b'1'	b'0'	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'
186	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'	b'1'
187	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'	b'1'
188	b'1'	b'1'	b'0'	b'1'	b'1'	b'1'	b'0'	b'1'
189	b'1'	b'1'	b'1'	b'0'	b'1'	b'0'	b'1'	b'0'
190	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'	b'1'
191	b'1'	b'1'	b'0'	b'1'	b'0'	b'0'	b'0'	b'1'
192	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
193	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
194	b'0'	b'1'	b'0'	b'1'	b'0'	b'0'	b'0'	b'1'
195	b'1'	b'0'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'
196	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'
197	b'1'	b'0'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'
198	b'1'	b'1'	b'1'	b'0'	b'1'	b'1'	b'0'	b'1'
199	b'1'	b'1'	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'
200	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'	b'1'	b'1'
201	b'1'	b'1'	b'0'	b'1'	b'1'	b'0'	b'0'	b'0'
202	b'1'	b'1'	b'0'	b'1'	b'1'	b'0'	b'0'	b'1'
203	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'
204	b'1'	b'0'	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'
205	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'
206	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'
207	b'1'	b'1'	b'1'	b'0'	b'1'	b'0'	b'0'	b'1'
208	b'1'	b'1'	b'1'	b'1'	b'0'	b'0'	b'1'	b'1'
209	b'1'	b'0'	b'0'	b'1'	b 0 b'1'	b'1'	b'1'	b'1'
210	b'1'	b'0'	b 0 b'1'	b'1'	b'1'	b'1'	b'1'	b'1'
211	b'0'	b'0'	b'0'	b'1'	b'0'	b'1'	b'0'	b'1'
212	b'1'	b'1'	b'0'	b'0'	b'0'	b'1'	b'1'	b'1'
213	b'1'	b'0'	b 0 b'1'	b'1'	b'0'	b'0'	b'0'	b'0'
214	b'1'	b'1'	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'
214	b'1'	b'1'	b'0'	b'0'	b'0'	b'1'	b'0' b'1'	b'1'
216	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'	b'1'
217	b'1'	b'0' b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
218	b'1'	b'1'	b'0'	b'1'	b'1'	b'0'	b'1'	b'1'
219	b'1'	b'0'	b'0'	b'1'	b'0'	b'0'	b'0'	b'0'
220	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
221	b'0'	b'0'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'
222	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'	b'0'	b'1'
223	b'1'	b'0'	b'1'	b'1'	b'0'	b'1'	b'1'	b'1'
224	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'
225	b'0'	b'1'	b'0'	b'1'	b'0'	b'0'	b'0'	b'1'

226	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'
227	b'0'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'
228	b'0'	b'0'	b'0'	b'1'	b'1'	b'0'	b'1'	b'1'
229	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'
230	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'	b'1'
231	b'1'	b'0'	b'0'	b'1'	b'0'	b'0'	b'0'	b'0'
232	b'1'	b'1'	b'0'	b'0'	b'1'	b'0'	b'0'	b'0'
233	b'0'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
234	b'0'	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'
235	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
236	b'1'	b'0'	b'0'	b'0'	b'1'	b'1'	b'1'	b'1'
237	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'
238	b'0'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
239	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
240	b'1'	b'0'	b'0'	b'1'	b'1'	b'0'	b'1'	b'1'
241	b'1'	b'0'	b'0'	b'0'	b'1'	b'0'	b'1'	b'1'
242	b'1'	b'0'	b'0'	b'0'	b'1'	b'0'	b'0'	b'1'
243	b'0'	b'0'	b'1'	b'0'	b'1'	b'1'	b'0'	b'0'
244	b'1'	b'0'	b'1'	b'0'	b'1'	b'0'	b'1'	b'1'
245	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'	b'1'
246	b'1'	b'0'	b'0'	b'1'	b'1'	b'0'	b'1'	b'1'
247	b'0'	b'0'	b'1'	b'1'	b'0'	b'1'	b'0'	b'1'
248	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
249	b'1'	b'0'	b'0'	b'1'	b'1'	b'1'	b'1'	b'1'
250	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'	b'1'
251	b'1'	b'0'	b'0'	b'1'	b'0'	b'0'	b'1'	b'1'
252	b'0'	b'0'	b'0'	b'1'	b'0'	b'0'	b'0'	b'1'
253	b'0'	b'0'	b'0'	b'1'	b'0'	b'0'	b'1'	b'0'
254	b'1'	b'0'	b'1'	b'0'	b'0'	b'0'	b'1'	b'0'
255	b'1'	b'1'	b'0'	b'0'	b'1'	b'0'	b'0'	b'1'
256	b'1'	b'0'	b'0'	b'0'	b'0'	b'1'	b'0'	b'1'
257	b'0'	b'1'	b'1'	b'0'	b'1'	b'0'	b'0'	b'1'
258	b'1'	b'0'	b'0'	b'0'	b'1'	b'1'	b'0'	b'1'
259	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'	b'1'
260	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'	b'1'
261	b'1'	b'0'	b'1'	b'0'	b'1'	b'0'	b'0'	b'1'
262	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'	b'1'
263	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'
264	b'1'	b'0'	b'0'	b'0'	b'1'	b'0'	b'0'	b'1'
265	b'1'	b'1'	b'1'	b'0'	b'1'	b'0'	b'1'	b'1'
266	b'1'	b'0'	b'0'	b'1'	b'0'	b'0'	b'0'	b'0'
267	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
268	b'1'	b'0'	b'1'	b'1'	b'1'	b'0'	b'0'	b'1'
269	b'1'	b'0'	b'0'	b'1'	b'1'	b'0'	b'1'	b'1'
270	b'1'	b'0'	b'1'	b'1'	b'1'	b'1'	b'0'	b'0'
271	b'1'	b'1'	b'1'	b'1'	b'0'	b'0'	b'0'	b'1'
272	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'
273	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'
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274	b'1'	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'	b'1'
275	b'0'	b'1'	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'
276	b'1'	b'0'	b'0'	b'0'	b'1'	b'0'	b'0'	b'0'
277	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'
278	b'1'	b'0'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'
279	b'0'	b'1'	b'1'	b'0'	b'1'	b'0'	b'0'	b'0'
280	b'1'	b'0'						
281	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'	b'0'	b'1'
282	b'0'	b'1'	b'1'	b'0'	b'1'	b'1'	b'1'	b'0'
283	b'1'							
284	b'0'	b'1'	b'0'	b'0'	b'0'	b'0'	b'1'	b'0'
285	b'0'	b'0'	b'0'	b'1'	b'1'	b'1'	b'1'	b'0'
286	b'0'							
287	b'1'	b'0'	b'0'	b'1'	b'1'	b'0'	b'0'	b'1'
288	b'0'							
289	b'1'	b'1'	b'1'	b'0'	b'1'	b'1'	b'1'	b'0'
290	b'1'	b'1'	b'1'	b'0'	b'1'	b'1'	b'1'	b'0'
291	b'1'	b'1'	b'0'	b'1'	b'1'	b'0'	b'0'	b'1'
292	b'0'	b'1'	b'1'	b'1'	b'0'	b'0'	b'0'	b'1'
293	b'1'	b'0'	b'0'	b'0'	b'1'	b'0'	b'1'	b'0'
294	b'0'							
295	b'1'	b'0'	b'1'	b'1'	b'1'	b'1'	b'0'	b'0'
296	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'	b'0'
297	b'1'	b'1'	b'1'	b'1'	b'0'	b'1'	b'0'	b'1'
298	b'1'	b'0'	b'0'	b'1'	b'0'	b'0'	b'1'	b'1'
299	b'1'	b'0'						
300	b'1'	b'0'	b'0'	b'1'	b'0'	b'0'	b'0'	b'1'
301	b'1'							
302	b'0'	b'0'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'
303	b'0'	b'1'						
304	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'	b'0'	b'0'
305	b'1'	b'1'	b'0'	b'1'	b'0'	b'0'	b'0'	b'0'
306	b'1'	b'0'	b'0'	b'1'	b'1'	b'0'	b'1'	b'1'
307	b'1'	b'0'	b'0'	b'1'	b'1'	b'1'	b'1'	b'1'
308	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'	b'0'
309	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'	b'1'
310	b'1'	b'0'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'
311	b'0'	b'0'	b'1'	b'1'	b'1'	b'0'	b'0'	b'1'
312	b'1'	b'0'	b'1'	b'0'	b'1'	b'1'	b'1'	b'1'
313	b'1'	b'0'	b'1'	b'1'	b'1'	b'1'	b'0'	b'1'
314	b'1'	b'0'	b'0'	b'1'	b'1'	b'0'	b'0'	b'1'
315	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
316	b'0'	b'1'	b'0'	b'0'	b'0'	b'0'	b'1'	b'1'
317	b'0'	b'0'	b'0'	b'1'	b'1'	b'0'	b'0'	b'1'
318	b'1'	b'1'	b'1'	b'0'	b'1'	b'0'	b'0'	b'1'
319	b'0'							
320	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'
321	b'0'	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'	b'1'

322	b'1'	b'1'	b'1'	b'0'	b'1'	b'1'	b'1'	b'1'
323	b'1'	b'1'	b'0'	b'1'	b'1'	b'0'	b'0'	b'0'
324	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'
325	b'1'	b'1'	b'1'	b'0'	b'1'	b'0'	b'0'	b'1'
326	b'1'	b'1'	b'1'	b'0'	b'1'	b'0'	b'0'	b'1'
327	b'0'	b'0'	b'0'	b'0'	b'1'	b'0'	b'0'	b'1'
328	b'1'	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'	b'1'
329	b'0'	b'1'	b'0'	b'0'	b'0'	b'0'	b'1'	b'1'
330	b'1'	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'	b'1'
331	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'
332	b'1'	b'0'	b'0'	b'1'	b'1'	b'1'	b'1'	b'0'
333	b'1'	b'0'	b'0'	b'0'	b'0'	b'1'	b'1'	b'0'
334	b'1'	b'1'	b'0'	b'1'	b'0'	b'0'	b'1'	b'1'
335	b'1'	b'1'	b'1'	b'1'	b'0'	b'0'	b'1'	b'1'
336	b'1'	b'0'	b'0'	b'1'	b'1'	b'1'	b'0'	b'0'
337	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'
338	b'1'	b'0'	b'1'	b'0'	b'0'	b'0'	b'1'	b'1'
339	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'	b'0'
	b'1'	b'0'	b 0 b'1'	b'1'	b'0'	b'0'	b'1'	b'1'
340	b'1'		b'1'		b'1'	b'0'		b'1'
341		b'1'	b'1'	b'1' b'1'	b'0'	b'0'	b'0'	b'0'
342	b'1'	b'0'	~ -		b'0'		b'0' b'0'	
343	b'1'	b'0'	b'0'	b'1'		b'0'		b'0'
344	b'0'	b'1'	b'0'	b'1'	b'0'	b'1'	b'0'	b'1'
345	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'
346	b'1'	b'0'	b'0'	b'0'	b'1'	b'0'	b'1'	b'1'
347	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
348	b'1'	b'0'	b'1'	b'1'	b'0'	b'1'	b'1'	b'1'
349	b'1'	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'	b'1'
350	b'1'	b'1'	b'1'	b'0'	b'1'	b'0'	b'1'	b'1'
• •	• • •	• • •	• • •	• • •	• • •		• • •	• • •
353	b'1'	b'0'	b'1'	b'0'	b'0'	b'0'	b'1'	b'0'
354	b'0'	b'0'	b'0'	b'1'	b'0'	b'0'	b'0'	b'1'
355	b'0'	b'0'	b'0'	b'0'	b'1'	b'0'	b'0'	b'1'
356	b'1'	b'0'	b'0'	b'1'	b'0'	b'0'	b'0'	b'1'
357	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
358	b'1'	b'0'	b'0'	b'1'	b'0'	b'0'	b'1'	b'0'
359	b'0'	b'0'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'
360	b'1'	b'0'	b'1'	b'0'	b'1'	b'0'	b'0'	b'1'
361	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'	b'0'	b'1'
362	b'0'	b'0'	b'0'	b'0'	b'1'	b'0'	b'0'	b'1'
363	b'0'	b'1'	b'0'	b'1'	b'0'	b'0'	b'0'	b'0'
364	b'0'	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'	b'1'
365	b'1'	b'0'	b'0'	b'0'	b'0'	b'1'	b'0'	b'1'
366	b'1'	b'0'	b'1'	b'0'	b'1'	b'0'	b'0'	b'1'
367	b'0'	b'0'	b'1'	b'1'	b'0'	b'0'	b'1'	b'0'
368	b'1'	b'0'	b'1'	b'0'	b'1'	b'0'	b'0'	b'1'
369	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
370	b'1'	b'0'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'

371	b'1'	b'0'	b'0'	b'1'	b'1'	b'0'	b'0'	b'1'
372	b'0'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'
373	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
374	b'1'	b'0'	b'0'	b'1'	b'1'	b'0'	b'1'	b'0'
375	b'1'	b'0'	b'0'	b'0'	b'0'	b'1'	b'0'	b'0'
376	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
377	b'1'	b'0'	b'0'	b'0'	b'0'	b'1'	b'1'	b'1'
378	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
379	b'0'	b'1'	b'0'	b'0'	b'1'	b'1'	b'0'	b'0'
380	b'0'	b'0'	b'0'	b'1'	b'0'	b'0'	b'1'	b'0'
381	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
382	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'	b'1'	b'0'
383	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'	b'1'
384	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
							b'0'	
385	b'1'	b'0'	b'1'	b'0'	b'0'	b'0'		b'0'
386	b'1'	b'0'	b'0'	b'1'	b'0'	b'0'	b'0'	b'0'
387	b'1'	b'0'	b'1'	b'1'	b'1'	b'0'	b'1'	b'1'
388	b'1'	b'1'	b'0'	b'0'	b'1'	b'0'	b'0'	b'1'
389	b'0'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
390	b'1'	b'0'	b'0'	b'0'	b'1'	b'0'	b'0'	b'1'
391	b'1'	b'0'	b'1'	b'1'	b'1'	b'0'	b'0'	b'0'
392	b'0'	b'1'	b'0'	b'0'	b'0'	b'1'	b'0'	b'1'
393	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
394	b'1'	b'0'	b'0'	b'0'	b'1'	b'1'	b'0'	b'1'
395	b'0'	b'1'	b'1'	b'1'	b'0'	b'1'	b'0'	b'1'
396	b'1'	b'1'	b'1'	b'0'	b'1'	b'0'	b'0'	b'0'
397	b'0'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
398	b'0'	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'	b'1'
399	b'1'	b'0'						
400	b'1'	b'0'	b'0'	b'1'	b'0'	b'0'	b'1'	b'1'
401	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
402	b'1'	b'0'	b'0'	b'1'	b'0'	b'0'	b'1'	b'0'
403	b'1'	b'0'	b'0'	b'1'	b'0'	b'0'	b'1'	b'0'
404	b'0'	b'1'	b'0'	b'1'	b'1'	b'0'	b'0'	b'0'
405	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'	b'1'
406	b'0'	b'1'	b'0'	b'0'	b'1'	b'0'	b'1'	b'1'
407	b'1'	b'0'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'
408	b'1'	b'0'	b'0'	b'1'	b'1'	b'0'	b'0'	b'1'
409	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'
410	b'1'	b'1'	b'0'	b'1'	b'0'	b'0'	b'0'	b'0'
411	b'0'	b'1'	b'0'	b'1'	b'0'	b'0'	b'0'	b'1'
412	b'0'	b'0'	b'1'	b'1'	b'1'	b'0'	b'0'	b'1'
413	b'0'	b'0'	b'1'	b'1'	b'1'	b'0'	b'0'	b'0'
414	b'1'	b'0'	b'1'	b'1'	b'1'	b'0'	b'1'	b'1'
415	b'1'	b'0'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'
416	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'	b'1'
417	b'1'	b'1'	b'0'	b'1'	b'0'	b'0'	b'1'	b'1'
418	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'	b'0'
	~ -	~ ~	~ 0	~ 0	~ 0	~ 0	~ -	~ 0

419	b'1'	b'0'	b'0'	b'0'	b'1'	b'0'	b'1'	b'0'
420	b'1'	b'0'	b'1'	b'0'	b'1'	b'0'	b'1'	b'1'
421	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'	b'0'
422	b'1'	b'0'	b'1'	b'0'	b'0'	b'1'	b'0'	b'1'
423	b'0'	b'1'	b'0'	b'1'	b'0'	b'0'	b'0'	b'0'
424	b'1'	b'1'	b'1'	b'1'	b'0'	b'0'	b'1'	b'0'
425	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'	b'1'
426	b'1'	b'0'	b'1'	b'1'	b'1'	b'1'	b'0'	b'1'
427	b'1'	b'0'	b'0'	b'1'	b'0'	b'0'	b'1'	b'1'
428	b'0'	b'0'	b'0'	b'0'	b'1'	b'0'	b'1'	b'0'
429	b'1'	b'0'	b'1'	b'0'	b'1'	b'0'	b'1'	b'1'
430	b'1'	b'0'						
431	b'1'							
432	b'1'	b'0'	b'0'	b'1'	b'1'	b'0'	b'0'	b'0'
433	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'	b'1'
434	b'1'	b'0'	b'0'	b'0'	b'0'	b'1'	b'0'	b'0'
435	b'0'	b'0'	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'
436	b'1'	b'1'	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'
437	b'1'	b'1'	b'0'	b'0'	b'1'	b'1'	b'0'	b'1'
438	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
439	b'0'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
440	b'1'	b'0'	b'1'	b'1'	b'1'	b'0'	b'1'	b'0'
441	b'1'	b'0'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'
442	b'0'	b'1'	b'1'	b'1'	b'1'	b'0'	b'1'	b'0'
443	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'	b'0'	b'1'
444	b'0'	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'	b'1'
445	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
446	b'1'	b'0'	b'0'	b'1'	b'1'	b'0'	b'1'	b'1'
447	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
448	b'1'	b'0'						
449	b'1'	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'	b'1'
450	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
451	b'0'	b'0'	b'1'	b'1'	b'0'	b'0'	b'0'	b'1'
452	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'	b'0'	b'1'
453	b'0'	b'0'	b'1'	b'1'	b'1'	b'0'	b'0'	b'0'
454	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'	b'1'	b'0'
455	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
456	b'1'	b'1'	b'0'	b'1'	b'1'	b'0'	b'0'	b'0'
457	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'	b'0'
458	b'0'	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'	b'1'
459	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'	b'0'	b'1'
460	b'0'	b'0'	b'0'	b'1'	b'0'	b'0'	b'0'	b'0'
461	b'0'	b'1'						
462	b'0'	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'	b'0'
463	b'0'	b'0'	b'0'	b'1'	b'0'	b'0'	b'1'	b'0'
464	b'1'	b'1'	b'0'	b'1'	b'1'	b'1'	b'1'	b'1'
465	b'1'	b'0'	b'0'	b'0'	b'0'	b'1'	b'0'	b'0'
466	b'0'	b'0'	b'1'	b'1'	b'0'	b'1'	b'1'	b'1'

467	b'1'	b'0'	b'1'	b'1'	b'0'	b'1'	b'0'	b'0'
468	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'
469	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
470	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'	b'0'	b'1'
471	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'	b'1'	b'1'
472	b'1'	b'0'	b'1'	b'1'	b'1'	b'0'	b'0'	b'0'
473	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
474	b'1'	b'0'	b'0'	b'1'	b'1'	b'0'	b'1'	b'0'
475	b'1'	b'0'	b'0'	b'0'	b'0'	b'1'	b'0'	b'1'
476	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'
477	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
478	b'1'	b'0'	b'0'	b'0'	b'1'	b'0'	b'0'	b'1'
479	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
480	b'1'	b'0'	b'0'	b'0'	b'1'	b'0'	b'1'	b'1'
481	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
482	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'	b'0'
483	b'1'	b'1'	b'1'	b'1'	b'0'	b'0'	b'1'	b'1'
484	b'1'	b'0'	b'1'	b'1'	b'0'	b'0'	b'1'	b'1'
485	b'0'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
486	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'
487	b'1'	b'1'	b'0'	b'1'	b'1'	b'1'	b'0'	b'0'
488	b'0'	b'1'	b'1'	b'0'	b'0'	b'0'	b'1'	b'0'
489	b'1'	b'1'	b'1'	b'1'	b'0'	b'0'	b'0'	b'1'
490	b'1'	b'1'	b'1'	b'1'	b'0'	b'0'	b'1'	b'1'
491	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'
492	b'1'	b'0'	b'0'	b'0'	b'1'	b'0'	b'1'	b'1'
493	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'
494	b'1'	b'1'	b'1'	b'1'	b'0'	b'0'	b'1'	b'0'
495	b'1'	b'0'	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'
496	b'0'	b'0'	b'0'	b'1'	b'0'	b'0'	b'0'	b'1'
497	b'0'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'
498	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'	b'1'	b'1'
499	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
500	b'0'	b'1'	b'1'	b'1'	b'1'	b'0'	b'0'	b'0'
501	b'1'	b'1'	b'0'	b'1'	b'1'	b'1'	b'0'	b'1'
502	b'0'	b'1'	b'0'	b'0'	b'1'	b'0'	b'1'	b'1'
503	b'1'	b'0'	b'1'	b'1'	b'1'	b'0'	b'0'	b'1'
504	b'1'	b'0'	b'1'	b'1'	b'1'	b'0'	b'1'	b'1'
505	b'1'	b'0'	b'1'	b'0'	b'1'	b'0'	b'1'	b'1'
506	b'1'	b'0'	b'1'	b'0'	b'0'	b'0'	b'1'	b'0'
507	b'0'	b'1'	b'1'	b'0'	b'1'	b'0'	b'0'	b'1'
508	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'
509	b'0'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'
510	b'0'	b'1'	b'0' b'1'	b'0' b'1'	b'0' b'1'	b'1'	b'0' b'1'	b'1'
					b'1'		b'1'	
511	b'1'	b'1'	b'1'	b'1'		b'1'		b'0'
512	b'1'	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'
513	b'1'	b'0'	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'
514	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'	b'1'	b'1'

515	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'	b'1'
516	b'1'	b'1'	b'0'	b'1'	b'0'	b'0'	b'1'	b'0'
517	b'1'	b'0'	b'1'	b'1'	b'1'	b'0'	b'1'	b'0'
518	b'0'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'
519	b'0'	b'0'	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'
520	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'	b'0'	b'1'
521	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'	b'0'	b'1'
522	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'	b'1'	b'0'
523	b'1'	b'1'	b'0'	b'1'	b'1'	b'1'	b'0'	b'0'
524	b'1'	b'1'	b'1'	b'1'	b'0'	b'1'	b'0'	b'1'
525	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'	b'1'
526	b'0'	b'0'	b'0'	b'1'	b'0'	b'0'	b'1'	b'1'
527	b'0'	b'0'	b'0'	b'0'	b'1'	b'0'	b'0'	b'1'
528	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'
529	b'0'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
530	b'1'	b'0'	b'0'	b'0'	b'1'	b'0'	b'0'	b'0'
531	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'	b'1'	b'1'
532	b'0'	b'1'	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'
533	b'0'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'
534	b'0'	b'0'	b'0'	b'1'	b'1'	b'0'	b'1'	b'0'
535	b'0'	b'1'	b'0'	b'0'	b'1'	b'0'	b'0'	b'0'
536	b'0'	b'1'	b'0'	b'0'	b'1'	b'0'	b'0'	b'0'
537	b'0'	b'1'	b'0'	b'0'	b'1'	b'1'	b'0'	b'0'
538	b'1'	b'0'	b'1'	b'0'	b'0'	b'1'	b'0'	b'1'
539	b'0'	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'	b'0'
540	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'	b'1'
541	b'0'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'
542	b'0'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'
543	b'0'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'
544	b'1'	b'0'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'
545	b'1'	b'0'	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'
546	b'1'	b'0'	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'
547	b'0'	b'1'	b'1'	b'1'	b'0'	b'0'	b'0'	b'1'
548	b'1'	b'1'	b'1'	b'1'	b'0'	b'0'	b'1'	b'0'
549	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'
550	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'
551	b'1'	b'0'	b'0'	b'0'	b'1'	b'0'	b'0'	b'0'
552	b'0'	b'0'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'
553	b'1'	b'1'	b'1'	b'0'	b'1'	b'0'	b'1'	b'0'
554	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'	b'1'
555	b'1'	b'0'	b'0'	b'1'	b'1'	b'0'	b'0'	b'1'
556	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
557	b'1'	b'1'	b'0'	b'1'	b'1'	b'0'	b'0'	b'0'
558	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'
559	b'0'	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'	b'0'
560	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'
561	b'1'	b'0'	b'0'	b'1'	b'1'	b'1'	b'1'	b'1'
562	b'0'	b'1'	b'0'	b'1'	b'0'	b'1'	b'1'	b'0'
-	- ·	-	- -		- •	-	-	- •

563	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'	b'1'
564	b'0'	b'1'	b'0'	b'0'	b'1'	b'1'	b'0'	b'0'
565	b'0'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
566	b'0'	b'1'	b'0'	b'1'	b'0'	b'1'	b'0'	b'0'
567	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'	b'1'	b'1'
568	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'	b'1'
569	b'1'	b'0'	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'
570	b'1'	b'1'	b'0'	b'1'	b'0'	b'0'	b'0'	b'0'
571	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
572	b'1'	b'0'	b'0'	b'1'	b'0'	b'0'	b'0'	b'1'
573	b'1'							
574	b'1'	b'0'	b'0'	b'0'	b'1'	b'0'	b'1'	b'1'
575	b'1'	b'0'	b'0'	b'0'	b'1'	b'0'	b'1'	b'1'
576	b'1'	b'1'	b'0'	b'0'	b'1'	b'1'	b'1'	b'1'
577	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'	b'1'	b'1'
578	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'	b'0'	b'1'
579	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
580	b'0'	b'0'	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'
581	b'1'	b'1'	b'0'	b'0'	b'1'	b'0'	b'0'	b'0'
582	b'1'	b'1'	b'0'	b'0'	b'1'	b'1'	b'0'	b'1'
583	b'1'	b'1'	b'0'	b'1'	b'1'	b'1'	b'0'	b'1'
584	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'	b'0'	b'1'
585	b'1'	b'0'	b'1'	b'1'	b'0'	b'0'	b'1'	b'0'
586	b'1'							
587	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'	b'1'
588	b'1'	b'0'	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'
589	b'1'	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'
590	b'0'	b'1'	b'1'	b'1'	b'0'	b'0'	b'0'	b'1'
591	b'0'	b'1'	b'1'	b'1'	b'1'	b'0'	b'1'	b'0'
592	b'1'							
593	b'1'	b'0'						
594	b'1'	b'0'	b'0'	b'0'	b'1'	b'0'	b'0'	b'0'
595	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
596	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
597	b'1'	b'0'	b'0'	b'0'	b'1'	b'0'	b'1'	b'1'
598	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
599	b'1'	b'0'	b'1'	b'1'	b'0'	b'0'	b'0'	b'1'
600	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
601	b'1'	b'0'	b'1'	b'0'	b'0'	b'0'	b'0'	b'1'
602	b'1'	b'0'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'
603	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
604	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'	b'0'
605	b'1'	b'0'	b'0'	b'0'	b'1'	b'1'	b'0'	b'1'
606	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'	b'1'
607	b'0'	b'1'						
608	b'1'	b'0'						
609	b'1'	b'0'	b'0'	b'1'	b'0'	b'0'	b'1'	b'1'
610	b'0'	b'0'	b'1'	b'0'	b'1'	b'1'	b'0'	b'1'

611	b'1'	b'0'	b'0'	b'0'	b'1'	b'0'	b'1'	b'1'
612	b'1'	b'1'	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'
613	b'1'	b'0'						
614	b'1'	b'1'	b'0'	b'1'	b'0'	b'0'	b'0'	b'1'
615	b'1'	b'0'	b'1'	b'1'	b'0'	b'1'	b'0'	b'1'
616	b'1'	b'0'	b'0'	b'0'	b'1'	b'0'	b'1'	b'0'
617	b'0'	b'0'	b'0'	b'1'	b'1'	b'0'	b'0'	b'1'
618	b'0'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'
619	b'1'	b'0'	b'0'	b'1'	b'0'	b'0'	b'0'	b'1'
620	b'0'	b'1'	b'0'	b'0'	b'1'	b'0'	b'1'	b'1'
621	b'1'	b'0'	b'1'	b'1'	b'1'	b'0'	b'1'	b'1'
622	b'1'	b'0'	b'0'	b'0'	b'1'	b'0'	b'1'	b'1'
623	b'1'	b'0'	b'0'	b'1'	b'1'	b'0'	b'1'	b'1'
624	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
625	b'1'	b'0'	b'1'	b'0'	b'1'	b'0'	b'1'	b'1'
626	b'1'	b'0'	b'1'	b'0'	b'0'	b'0'	b'0'	b'1'
627	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'	b'1'
628	b'1'	b'0'	b'0'	b'0'	b'1'	b'0'	b'1'	b'1'
629	b'1'	b'0'	b'0'	b'0'	b'1'	b'0'	b'1'	b'1'
630	b'1'	b'1'	b'0'	b'1'	b'1'	b'0'	b'1'	b'1'
631	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'	b'0'
632	b'0'	b'0'	b'1'	b'0'	b'0'	b'0'	b'0'	b'1'
633	b'1'	b'1'	b'0'	b'0'	b'1'	b'0'	b'0'	b'1'
634	b'1'	b'0'	b'1'	b'0'	b'1'	b'0'	b'1'	b'1'
635	b'0'	b'1'	b'1'	b'0'	b'0'	b'0'	b'1'	b'0'
636	b'0'							
637	b'1'							
638	b'1'	b'1'	b'0'	b'1'	b'1'	b'0'	b'0'	b'1'
639	b'1'	b'0'	b'0'	b'0'	b'1'	b'1'	b'1'	b'1'
640	b'1'	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'	b'1'
641	b'1'	b'0'	b'1'	b'1'	b'1'	b'0'	b'1'	b'1'
642	b'0'	b'0'	b'0'	b'0'	b'1'	b'0'	b'0'	b'1'
643	b'1'	b'0'						
644	b'1'	b'0'	b'1'	b'1'	b'1'	b'0'	b'0'	b'1'
645	b'1'	b'0'	b'1'	b'1'	b'0'	b'0'	b'1'	b'1'
646	b'1'	b'1'	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'
647	b'1'	b'0'	b'1'	b'0'	b'0'	b'1'	b'0'	b'1'
648	b'1'	b'0'	b'1'	b'1'	b'1'	b'0'	b'0'	b'0'
649	b'0'	b'1'	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'
650	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'
651	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'	b'0'
652	b'0'							
653	b'1'							
654	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'	b'1'	b'1'
655	b'1'	b'0'	b'0'	b'1'	b'1'	b'0'	b'1'	b'0'
656	b'1'	b'0'	b'0'	b'0'	b'1'	b'0'	b'1'	b'0'
657	b'1'	b'1'	b'0'	b'0'	b'1'	b'0'	b'1'	b'0'
658	b'0'	b'0'	b'1'	b'1'	b'0'	b'0'	b'1'	b'0'

659	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'	b'0'
660	b'1'	b'1'	b'1'	b'0'	b'1'	b'1'	b'0'	b'1'
661	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'	b'1'
662	b'1'	b'0'	b'0'	b'1'	b'1'	b'1'	b'0'	b'0'
663	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'	b'1'
664	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'	b'1'
665	b'1'	b'0'						
666	b'0'	b'1'						
667	b'0'	b'0'	b'1'	b'0'	b'0'	b'0'	b'1'	b'1'
668	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'	b'1'
669	b'1'							
670	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'	b'1'	b'1'
671	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'	b'0'	b'1'
672	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'	b'1'	b'1'
673	b'1'	b'1'	b'1'	b'0'	b'1'	b'0'	b'1'	b'1'
674	b'1'	b'1'	b'0'	b'0'	b'1'	b'1'	b'0'	b'1'
675	b'1'	b'1'	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'
676	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'	b'1'	b'0'
677	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'	b'0'
678	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'	b'0'	b'1'
679	b'1'							
680	b'1'							
681	b'1'	b'1'	b'0'	b'1'	b'1'	b'1'	b'1'	b'1'
682	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
683	b'1'	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
684	b'1'	b'0'	b'1'	b'0'	b'0'	b'0'	b'0'	b'1'
685	b'1'	b'0'	b'1'	b'1'	b'1'	b'0'	b'0'	b'1'
686	b'1'	b'0'	b'0'	b'0'	b'1'	b'0'	b'1'	b'1'
687	b'1'	b'1'	b'1'	b'0'	b'1'	b'1'	b'1'	b'1'
688	b'1'	b'0'	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'
689	b'1'	b'0'	b'0'	b'0'	b'1'	b'1'	b'1'	b'1'
690	b'0'	b'0'	b'0'	b'0'	b'1'	b'0'	b'0'	b'0'
691	b'1'	b'0'	b'0'	b'1'	b'0'	b'0'	b'1'	b'1'
692	b'1'	b'1'	b'1'	b'0'	b'1'	b'1'	b'1'	b'1'
693	b'1'	b'0'	b'0'	b'1'	b'0'	b'0'	b'0'	b'1'
694	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'	b'0'	b'1'
695	b'1'	b'0'	b'1'	b'1'	b'0'	b'0'	b'1'	b'1'
696	b'1'	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'	b'1'
697	b'1'	b'1'	b'1'	b'1'	b'1'	b'0'	b'0'	b'0'
698	b'1'							
699	b'0'	b'1'	b'0'	b'1'	b'1'	b'0'	b'1'	b'1'
700	b'1'	b'0'	b'0'	b'0'	b'0'	b'0'	b'0'	b'1'
701	b'1'	b'0'	b'1'	b'1'	b'1'	b'0'	b'1'	b'1'
702	b'1'	b'0'	b'0'	b'1'	b'1'	b'0'	b'1'	b'0'
703	b'1'	b'0'	b'1'	b'1'	b'1'	b'0'	b'1'	b'1'

A9_Score A10_Score age gender ethnicity jundice austim \
0 b'0' b'0' 26.0 b'f' b'White-European' b'no' b'no'

1	b'0'	b'1'	24.0	b'm'	b'Latino'	b'no'	b'yes'
2	b'1'	b'1'	27.0	b'm'	b'Latino'	b'yes'	b'yes'
3	b'0'	b'1'	35.0	b'f'	b'White-European'	b'no'	b'yes'
4	b'0'	b'0'	40.0	b'f'	b'White-European'	b'no'	b'no'
5	b'1'	b'1'	36.0	b'm'	b'Others'	b'yes'	b'no'
6	b'0'	b'0'	17.0	b'f'	b'Black'	b'no'	b'no'
7	b'1'	b'0'	64.0	b'm'	b'White-European'	b'no'	b'no'
8	b'1'	b'1'	29.0	b'm'	b'White-European'	b'no'	b'no'
9	b'1'	b'0'	17.0	b'm'	b'Asian'	b'yes'	b'yes'
10	b'1'	b'1'	33.0	b'm'	b'White-European'	b'no'	b'no'
11	b'0'	b'1'	18.0	b'f'	b"'Middle Eastern '"	b'no'	b'no'
12	b'1'	b'0'	17.0	b'f'	b'White-European'	b'no'	b'no'
13	b'0'	b'1'	17.0	b'm'	b'White-European'	b'no'	b'no'
14	b'0'	b'1'	17.0	b'f'	-		b'no'
15	b'0'	b'1'	18.0	b'm'	b'White-European' b"'Middle Eastern '"	b'no'	
16						b'no'	b'yes'
	b'1'	b'1'	31.0	b'm'		b'no'	b'no'
17	b'0'	b'1'	30.0	b'm'	b'White-European'	b'no'	b'no'
18	b'0'	b'0'	35.0	b'f'	b"'Middle Eastern '"	b'no'	b'yes'
19	b'0'	b'1'	34.0	b'm'	b'White-European'	b'yes'	b'no'
20	b'0'	b'0'	38.0	b'm'	b'White-European'	b'no'	b'no'
21	b'0'	b'0'	27.0	b'f'	b'Black'	b'no'	b'no'
22	b'1'	b'1'	27.0	b'm'	b"'Middle Eastern '"	b'no'	b'no'
23	b'0'	b'1'	42.0	b'm'	b"'Middle Eastern '"	b'yes'	b'no'
24	b'0'	b'0'	43.0	b'm'	b'White-European'	b'no'	b'no'
25	b'0'	b'0'	24.0	b'f'	b'White-European'	b'yes'	b'no'
26	b'0'	b'0'	40.0	b'm'	b'Pasifika'	b'yes'	b'yes'
27	b'0'	b'0'	40.0	b'm'	b"'Middle Eastern '"	b'yes'	b'yes'
28	b'0'	b'0'	48.0	b'm'	b'Black'	b'no'	b'no'
29	b'1'	b'1'	31.0	b'm'	b"'Middle Eastern '"	b'no'	b'no'
30	b'0'	b'0'	18.0	b'm'	b'White-European'	b'no'	b'no'
31	b'0'	b'1'	37.0	b'f'	b'White-European'	b'no'	b'yes'
32	b'0'	b'1'	55.0	b'f'	b'Others'	b'no'	b'no'
33	b'1'	b'1'	18.0	b'f'	b'White-European'	b'yes'	b'no'
34	b'1'	b'1'	18.0	b'f'	b'White-European'	b'no'	b'no'
35	b'0'	b'0'	55.0	b'm'	b'White-European'	b'no'	b'no'
36	b'1'	b'1'	50.0	b'm'	b"'Middle Eastern '"	b'no'	b'no'
37	b'1'	b'0'	34.0	b'f'	b'White-European'	b'no'	b'no'
38	b'1'	b'1'	53.0	b'f'	b'White-European'	b'no'	b'no'
39	b'1'	b'1'	35.0	b'f'	b'White-European'	b'no'	b'yes'
40	b'0'	b'1'	20.0	b'f'	b'Latino'	b'yes'	b'no'
41	b'0'	b'0'	28.0	b'f'	b'Asian'	b'no'	b'no'
42	b'0'	b'1'	34.0	b'f'	b"'Middle Eastern '"	b'no'	b'yes'
43	b'0'	b'1'	36.0	b'f'	b'White-European'	b'yes'	b'yes'
44	b'0'	b'1'	27.0	b'f'	b'White-European'	b'no'	b'no'
45	b'1'	b'0'	53.0	b'f'	b'White-European'	b'no'	b'no'
46	b'0'	b'0'	24.0	b'f'	b'Pasifika'	b'no'	b'no'
47	b'0'	b'0'	24.0	b'm'	b'Pasifika'	b'no'	b'no'
48	b'0'	b'0'	55.0	b'm'	b'White-European'	b'no'	b'no'
-10	D U	D U	55.0	D III	n wirre-rarobean	D 110	D 110

49	b'0'	b'1'	30.0	b'f'	b'Asian'	b'no'	b'no'
50	b'0'	b'0'	21.0	b'f'	b'Latino'	b'no'	b'no'
51	b'1'	b'1'	35.0	b'f'	b'Black'	b'no'	b'no'
52	b'0'	b'0'	27.0	b'f'	b'Pasifika'	b'no'	b'no'
53	b'0'	b'1'	21.0	b'm'	b'Latino'	b'no'	b'yes'
54	b'1'	b'1'	47.0	b'm'	b'White-European'	b'no'	b'no'
55	b'1'	b'1'	30.0	b'f'	b'Asian'	b'no'	b'no'
56	b'1'	b'1'	28.0	b'f'	b'White-European'	b'no'	b'no'
57	b'1'	b'1'	43.0	b'f'	b'White-European'	b'no'	b'no'
58	b'0'	b'0'	32.0	b'f'	b"'South Asian'"	b'no'	b'yes'
59	b'0'	b'0'	44.0	b'f'	b'White-European'	b'no'	b'no'
60	b'0'	b'1'	20.0	b'f'	b'Others'	b'no'	b'no'
61	b'0'	b'1'	20.0	b'f'	b'Others'	b'no'	b'no'
62	b'0'	b'0'	27.0	b'm'	b'White-European'	b'no'	b'no'
63	b'1'	b'0'	19.0	b'm'	b'White-European'	b'no'	b'no'
64	b'0'	b'1'	29.0	b'f'	b'White-European'	b'no'	b'no'
65	b'0'	b'0'	21.0	b'm'	b"'Middle Eastern '"	b'no'	b'no'
66	b'0'	b'0'	27.0	b'm'	b"'Middle Eastern '"	b'no'	b'no'
67	b'0'	b'0'	21.0	b'm'	b'Hispanic'	b'no'	b'no'
68	b'0'	b'1'	35.0	b'm'	b"'Middle Eastern '"	b'no'	b'no'
69	b'0'	b'0'	42.0	b'm'	b'Black'	b'no'	b'no'
70	b'0'	b'1'	29.0	b'f'	b"'South Asian'"	b'no'	b'no'
71	b'0'	b'0'	58.0	b'm'	b South Asian'	b'no'	b'no'
72	b'0'	b'1'	21.0	b'm'	b'Others'	b'no'	b'no'
73	b'1'	b'1'	21.0	b'm'	b'Others'	b'no'	b'no'
73 74	b'1'	b'1'	37.0	b'f'	b'White-European'	b'no'	b'yes'
7 4 75	b'0'	b'0'	21.0	b'm'	b white European b'Hispanic'	b'no'	b'no'
76	b'0'	b'0'	20.0	b'm'	b"'Middle Eastern '"	b'no'	b'no'
77	b'1'	b'0'	33.0	b'f'	b'Black'	b'no'	b'yes'
78	b'0'	b'1'	20.0	b'm'	b"'Middle Eastern '"	b'no'	b'no'
79	b'0'	b'0'	45.0	b'f'	b'White-European'		b'no'
80	b'0'	b'1'	32.0	b'm'	b'White-European'	b'yes'	b'yes'
81	b'0'	b'1'	30.0	b'm'	b'White-European'	b'yes' b'no'	b'no'
82	b'1'	b'1'	33.0	b'f'	=		
83	b'0'	b'1'	42.0	b'f'	b'White-European' b"'Middle Eastern '"	b'no'	b'yes'
84	b'0'	b'0'	17.0	b'f'		b'no'	b'no'
85	b'0'	b'1'	27.0	b'f'	b'White-European' b"'Middle Eastern '"	b'no'	b'no'
	b'1'	b'1'		b'f'	<pre>b"'Middle Eastern '" b"'Middle Eastern '"</pre>	b'no'	b'no'
86 97			35.0			b'no'	b'yes'
87 88	b'0'	b'0' b'1'	37.0	b'm' b'f'	b'White-European'	b'no'	b'no'
88	b'1'		30.0		b'White-European'	b'no'	b'yes'
89	b'1'	b'1'	29.0	b'f'	b'White-European'	b'no'	b'no'
90	b'0'	b'1'	17.0	b'f'	b'White-European'	b'no'	b'yes'
91	b'0'	b'1'	27.0	b'f'	b'White-European'	b'no'	b'no'
92	b'0'	b'1'	22.0	b'f'	b'Pasifika'	b'no'	b'no'
93	b'1'	b'1'	19.0	b'f'	b'Latino'	b'no'	b'yes'
94	b'1'	b'1'	42.0	b'f'	b'White-European'	b'no'	b'yes'
95	b'0'	b'1'	37.0	b'f'	b'White-European'	b'no'	b'no'
96	b'0'	b'0'	28.0	b'f'	b'White-European'	b'no'	b'no'

97	b'0'	b'0'	22.0	b'm'	b'Others'	b'no'	b'no'
98	b'0'	b'0'	26.0	b'f'	b'Pasifika'	b'no'	b'no'
99	b'1'	b'0'	21.0	b'm'	b'Pasifika'	b'no'	b'no'
100	b'0'	b'0'	26.0	b'f'	b"'South Asian'"	b'no'	b'no'
101	b'0'	b'0'	39.0	b'f'	b'Asian'	b'no'	b'no'
102	b'1'	b'1'	26.0	b'm'	b'Asian'	b'no'	b'no'
103	b'0'	b'0'	26.0	b'm'	b'Asian'	b'no'	b'no'
104	b'0'	b'1'	21.0	b'm'	b"'South Asian'"	b'no'	b'no'
105	b'0'	b'0'	25.0	b'm'	b'Asian'	b'no'	b'no'
106	b'0'	b'1'	26.0	b'm'	b"'South Asian'"	b'no'	b'no'
107	b'0'	b'1'	30.0	b'f'	b'White-European'	b'no'	b'no'
108	b'0'	b'0'	19.0	b'f'	b'Asian'	b'no'	b'no'
109	b'0'	b'0'	19.0	b'f'	b'Asian'	b'no'	b'no'
110	b'1'	b'1'	25.0	b'f'	b'White-European'	b'no'	b'yes'
111	b'1'	b'1'	23.0	b'm'	b'White-European'	b'no'	b'no'
112	b'0'	b'1'	31.0	b'm'	b'Asian'	b'no'	b'no'
113	b'1'	b'1'	27.0	b'm'	b'Asian'	b'no'	b'no'
114	b'0'	b'1'	29.0	b'f'	b"'Middle Eastern '"	b'no'	b'no'
115	b'1'	b'0'	38.0	b'f'		b'no'	b'no'
	b'0'	b'1'		b'f'	b'White-European'		
116	b'0'		23.0		b'White-European'	b'no'	b'no'
117		b'0'	27.0	b'm'	b'White-European'	b'no'	b'no'
118	b'1'	b'1'	27.0	b'f'	b'White-European'	b'no'	b'no'
119	b'1'	b'0'	42.0	b'm'	b'White-European'	b'no'	b'no'
120	b'1'	b'1'	20.0	b'm'	b'White-European'	b'no'	b'no'
121	b'1'	b'1'	17.0	b'f'	b'White-European'	b'no'	b'no'
122	b'0'	b'0'	20.0	b'f'	b'Black'	b'no'	b'no'
123	b'0'	b'1'	30.0	b'm'	b'Asian'	b'yes'	b'no'
124	b'1'	b'1'	28.0	b'f'	b'White-European'	b'no'	b'yes'
125	b'0'	b'1'	26.0	b'f'	b'White-European'	b'no'	b'no'
126	b'0'	b'0'	26.0	b'f'	b'White-European'	b'no'	b'no'
127	b'0'	b'1'	31.0	b'm'	b"'Middle Eastern '"	b'no'	b'yes'
128	b'0'	b'1'	40.0	b'f'	b'White-European'	b'no'	b'no'
129	b'1'	b'1'	39.0	b'f'	b'White-European'	b'no'	b'yes'
130	b'0'	b'0'	18.0	b'f'	b'White-European'	b'no'	b'no'
131	b'0'	b'1'	24.0	b'm'	b'Black'	b'no'	b'no'
132	b'0'	b'0'	23.0	b'm'	b"'South Asian'"	b'no'	b'no'
133	b'0'	b'1'	24.0	b'm'	b'Asian'	b'no'	b'no'
134	b'1'	b'0'	24.0	b'm'	b'Asian'	b'no'	b'no'
135	b'1'	b'1'	27.0	b'm'	b'Asian'	b'no'	b'no'
136	b'1'	b'1'	24.0	b'm'	b'Asian'	b'no'	b'no'
137	b'0'	b'1'	25.0	b'm'	b'Asian'	b'no'	b'no'
138	b'0'	b'1'	22.0	b'm'	b'Asian'	b'no'	b'no'
139	b'0'	b'1'	40.0	b'f'	b'Asian'	b'no'	b'no'
140	b'0'	b'1'	23.0	b'm'	b'Asian'	b'no'	b'no'
141	b'0'	b'0'	29.0	b'm'	b"'South Asian'"	b'no'	b'no'
142	b'0'	b'0'	25.0	b'm'	b'Asian'	b'no'	b'no'
143	b'0'	b'0'	27.0	b'm'	b'Asian'	b'no'	b'no'
144	b'0'	b'0'	22.0	b'm'	b"'South Asian'"	b'no'	b'no'

b'no'	b'no'	b'White-European'	b'm'	28.0	b'1'	b'1'	145
b'no'	b'no'	b'White-European'	b'm'	20.0	b'1'	b'1'	146
b'no'	b'no'	b'White-European'	b'f'	19.0	b'1'	b'1'	147
b'no'	b'no'	b'Others'	b'f'	37.0	b'1'	b'0'	148
b'yes'	b'yes'	b'White-European'	b'm'	35.0	b'0'	b'1'	149
b'no'	b'no'	b'Asian'	b'm'	26.0	b'0'	b'0'	150
b'no'	b'no'	b'Asian'	b'm'	23.0	b'1'	b'0'	151
b'no'	b'no'	b"'South Asian'"	b'f'	32.0	b'1'	b'0'	152
b'no'	b'no'	b'Asian'	b'm'	30.0	b'1'	b'1'	153
b'no'	b'no'	b'Asian'	b'm'	31.0	b'1'	b'0'	154
b'no'	b'no'	b'Asian'	b'f'	28.0	b'1'	b'0'	155
b'no'	b'no'	b'Asian'	b'f'	29.0	b'1'	b'0'	156
b'no'	b'no'	b"'South Asian'"	b'f'	29.0	b'1'	b'0'	157
b'no'	b'no'	b'Asian'	b'f'	29.0	b'1'	b'1'	158
b'no'	b'no'	b'Asian'	b'm'	31.0	b'0'	b'0'	159
b'no'	b'no'	b'Asian'	b'm'	36.0	b'0'	b'0'	160
b'no'	b'no'	b"'South Asian'"	b'f'	32.0	b'0'	b'0'	161
b'no'	b'no'	b"'South Asian'"	b'f'	34.0	b'0'	b'0'	162
b'no'	b'no'	b South Asian'	b'm'	24.0	b'0'	b'0'	163
b'no'			b'f'	24.0	b'1'	b'0'	164
	b'no'	b'Asian'	b'm'	42.0	b'1'	b'0'	
b'no'	b'no'	b'Asian'					165
b'no'	b'no'	b'Others'	b'f'	26.0	b'1'	b'1'	166
b'no'	b'no'	b'Asian'	b'f'	27.0	b'0'	b'0'	167
b'yes'	b'no'	b'Latino'	b'f'	36.0	b'1'	b'1'	168
b'yes'	b'no'	b'Latino'	b'f'	36.0	b'1'	b'1'	169
b'no'	b'no'	b'Hispanic'	b'm'	55.0	b'1'	b'0'	170
b'no'	b'no'	b'Asian'	b'f'	23.0	b'0'	b'0'	171
b'no'	b'no'	b'Asian'	b'f'	22.0	b'1'	b'0'	172
b'no'	b'no'	b"'Middle Eastern '"	b'f'	42.0	b'0'	b'0'	173
b'no'	b'no'	b'White-European'	b'm'	54.0	b'0'	b'0'	174
b'no'	b'no'	b'Black'	b'f'	43.0	b'1'	b'1'	175
b'no'	b'no'	b'Black'	b'f'	43.0	b'1'	b'1'	176
b'no'	b'no'	b"'Middle Eastern '"	b'm'	29.0	b'1'	b'1'	177
b'no'	b'no'	b"'Middle Eastern '"	b'm'	29.0	b'1'	b'0'	178
b'no'	b'no'	b'White-European'	b'm'	37.0	b'0'	b'0'	179
b'no'	b'no'	b'White-European'	b'f'	39.0	b'1'	b'0'	180
b'no'	b'no'	b'Asian'	b'f'	18.0	b'0'	b'0'	181
b'no'	b'no'	b'White-European'	b'm'	31.0	b'1'	b'0'	182
b'no'	b'no'	b'Asian'	b'm'	34.0	b'1'	b'0'	183
b'no'	b'no'	b'White-European'	b'm'	22.0	b'1'	b'0'	184
b'no'	b'no'	b"'South Asian'"	b'm'	28.0	b'0'	b'1'	185
b'yes'	b'no'	b'Others'	b'm'	38.0	b'1'	b'0'	186
b'no'	b'no'	b'White-European'	b'f'	28.0	b'1'	b'0'	187
b'yes'	b'no'	b'White-European'	b'f'	53.0	b'1'	b'1'	188
b'no'	b'no'	b'White-European'	b'm'	26.0	b'0'	b'0'	189
b'no'	b'no'	b'White-European'	b'm'	37.0	b'1'	b'1'	190
b'yes'	b'yes'	b'Latino'	b'm'	42.0	b'1'	b'0'	191
b'no'	b'no'	b'Hispanic'	b'm'	43.0	b'1'	b'0'	192
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b'no'	b'no'	b'Asian'	b'f'	32.0	b'0'	b'0'	193
b'yes'	b'no'	b'White-European'	b'm'	31.0	b'0'	b'0'	194
b'no'	b'no'	b'White-European'	b'f'	53.0	b'1'	b'1'	195
b'no'	b'no'	b'White-European'	b'm'	28.0	b'1'	b'1'	196
b'no'	b'no'	b'White-European'	b'm'	38.0	b'1'	b'1'	197
b'no'	b'no'	b'White-European'	b'm'	31.0	b'0'	b'1'	198
b'yes'	b'no'	b'Pasifika'	b'f'	31.0	b'0'	b'0'	199
b'no'	b'no'	b'White-European'	b'f'	21.0	b'1'	b'1'	200
b'no'	b'no'	b'White-European'	b'f'	25.0	b'1'	b'1'	201
b'no'	b'no'	b'White-European'	b'f'	25.0	b'1'	b'1'	202
b'yes'	b'no'	b'White-European'	b'f'	60.0	b'1'	b'1'	203
b'yes'	b'no'	b'White-European'	b'm'	39.0	b'0'	b'0'	204
b'no'	b'no'	b'White-European'	b'm'	53.0	b'1'	b'1'	205
b'yes'	b'no'	b"'Middle Eastern '"	b'm'	20.0	b'1'	b'1'	206
b'no'	b'no'	b'White-European'	b'f'	25.0	b'1'	b'1'	207
b'no'	b'no'	b'White-European'	b'm'	50.0	b'0'	b'0'	208
b'no'	b'no'	b'White-European'	b'f'	28.0	b'1'	b'1'	209
b'yes'	b'no'	b'White-European'	b'f'	37.0	b'1'	b'1'	210
b'yes'	b'no'	b'Asian'	b'm'	30.0	b'1'	b'1'	211
b'no'	b'no'	b'White-European'	b'f'	32.0	b'1'	b'0'	212
b'no'	b'no'	b'White-European'	b'f'	34.0	b'1'	b'0'	213
b'no'	b'no'	b'White-European'	b'm'	42.0	b'1'	b'0'	214
b'no'	b'no'	b'Black'	b'f'	22.0	b'1'	b'1'	215
b'no'	b'yes'	b'White-European'	b'f'	37.0	b'1'	b'0'	216
b'yes'	b'no'	b'White-European'	b'm'	39.0	b'1'	b'0'	217
b'no'	b'no'	b'White-European'	b'm'	18.0	b'1'	b'0'	218
b'yes'	b'no'	b'White-European'	b'f'	54.0	b'0'	b'0'	219
b'no'	b'no'	b'White-European'	b'm'	42.0	b'0'	b'0'	220
b'no'	b'no'	b'White-European'	b'f'	27.0	b'0'	b'0'	221
b'no'	b'no'	b'White-European'	b'm'	22.0	b'0'	b'0'	222
b'no'	b'no'	b'White-European'	b'm'	22.0	b'1'	b'1'	223
b'no'	b'no'	b'White-European'	b'f'	21.0	b'1'	b'1'	224
b'no'	b'no'	b'White-European'	b'f'	28.0	b'1'	b'0'	225
b'no'	b'yes'	b'Asian'	b'm'	17.0	b'1'	b'1'	226
b'no'	b'no'	b'White-European'	b'm'	28.0	b'0'	b'0'	227
b'no'	b'no'	b'Latino'	b'm'	21.0	b'1'	b'0'	228
b'no'	b'no'	b'Asian'	b'f'	31.0	b'1'	b'1'	229
b'no'	b'no'	b"'South Asian'"	b'm'	20.0	b'0'	b'0'	230
b'no'	b'no'	b'White-European'	b'm'	21.0	b'0'	b'0'	231
b'no'	b'no'	b'White-European'	b'm'	22.0	b'0'	b'0'	232
b'no'	b'no'	b'White-European'	b'm'	21.0	b'1'	b'1'	233
b'no'	b'no'	b'Black'	b'm'	24.0	b'0'	b'0'	234
b'no'	b'no'	b"'South Asian'"	b'm'	24.0	b'0'	b'0'	235
b'no'	b'no'	b'Asian'	b'm'	25.0	b'1'	b'0'	236
b'no'	b'no'	b"'South Asian'"	b'm'	17.0	b'1'	b'0'	237
b'no'	b'no'	b'White-European'	b'm'	21.0	b'0'	b'1'	238
b'no'	b'no'	b'Pasifika'	b'm'	23.0	b'0'	b'0'	239
b'no'	b'no'	b'Asian'	b'm'	21.0	b'0'	b'0'	240

241	b'1'	b'1'	22.0	b'm'	b'Others'	b'no'	b'no'
242	b'0'	b'1'	24.0	b'f'	b'Asian'	b'no'	b'no'
243	b'1'	b'1'	34.0	b'm'	b'Others'	b'no'	b'no'
244	b'0'	b'1'	30.0	b'm'	b'Asian'	b'no'	b'no'
245	b'0'	b'1'	29.0	b'f'	b'Asian'	b'no'	b'no'
246	b'0'	b'0'	20.0	b'm'	b'Pasifika'	b'no'	b'no'
247	b'1'	b'1'	23.0	b'm'	b'White-European'	b'no'	b'no'
248	b'0'	b'1'	26.0	b'm'	b'Asian'	b'no'	b'no'
249	b'1'	b'1'	20.0	b'm'	b"'South Asian'"	b'no'	b'no'
250	b'0'	b'0'	41.0	b'm'	b'Asian'	b'no'	b'no'
251	b'0'	b'0'	24.0	b'm'	b'Asian'	b'no'	b'no'
252	b'0'	b'0'	35.0	b'm'	b'Asian'	b'no'	b'no'
253	b'0'	b'0'	23.0	b'm'	b"'South Asian'"	b'no'	b'no'
254	b'0'	b'0'	36.0	b'm'	b'White-European'	b'no'	b'no'
255	b'0'	b'0'	33.0	b'm'	b'Turkish'	b'no'	b'no'
256	b'1'	b'1'	24.0	b'm'	b"'South Asian'"	b'no'	b'no'
257	b'0'	b'0'	25.0	b'm'	b'White-European'	b'no'	b'no'
258	b'0'	b'1'	25.0	b'm'	b'Asian'	b'no'	b'no'
259	b'1'	b'1'	25.0	b'm'	b'Asian'	b'no'	b'no'
260	b'0'	b'1'	24.0	b'm'	b'Asian'	b'no'	b'no'
261	b'0'	b'1'	27.0	b'f'	b"'South Asian'"	b'no'	b'no'
262	b'0'	b'0'	26.0	b'm'	b'Asian'	b'no'	b'no'
263	b'0'	b'0'	26.0	b'm'	b'Others'	b'no'	b'no'
264	b'1'	b'0'	23.0	b'f'	b'Asian'	b'no'	b'no'
265	b'0'	b'1'	30.0	b'm'	b'Asian'	b'no'	b'no'
266	b'1'	b'0'	25.0	b'm'	b'Asian'	b'no'	b'no'
267	b'0'	b'1'	23.0	b'm'	b'Pasifika'	b'no'	b'no'
268	b'0'	b'0'	34.0	b'f'	b'White-European'	b'no'	b'no'
269	b'0'	b'1'	20.0	b'f'	b'Asian'	b'no'	b'no'
270	b'1'	b'1'	22.0	b'f'	b'White-European'	b'no'	b'yes'
271	b'1'	b'1'	33.0	b'f'	b'Black'	b'no'	b'yes'
272	b'1'	b'1'	46.0	b'm'	b'White-European'	b'no'	b'no'
273	b'0'	b'0'	17.0	b'm'	b'White-European'	b'no'	b'no'
274	b'0'	b'0'	45.0	b'f'	b'White-European'	b'no'	b'yes'
275	b'1'	b'0'	26.0	b'm'	b'Asian'	b'no'	b'no'
276	b'1'	b'0'	30.0	b'm'	b'White-European'	b'no'	b'no'
277	b'0'	b'0'	32.0	b'f'	b'White-European'	b'no'	b'yes'
278	b'1'	b'1'	38.0	b'f'	b'White-European'	b'no'	b'no'
279	b'0'	b'0'	26.0	b'm'	b'Hispanic'	b'yes'	b'no'
280	b'0'	b'0'	29.0	b'f'	b'Hispanic'	b'no'	b'yes'
281	b'1'	b'1'	33.0	b'm'	b'White-European'	b'no'	b'no'
282	b'1'	b'1'	32.0	b'f'	b'Black'	b'no'	b'no'
283	b'1'	b'1'	44.0	b'f'	b'White-European'	b'no'	b'no'
284	b'0'	b'1'	47.0	b'f'	b'White-European'	b'yes'	b'no'
285	b'1'	b'1'	32.0	b'f'	b'White-European'	b'no'	b'no'
286	b'0'	b'0'	40.0	b'm'	b'White-European'	b'no'	b'no'
287	b'0'	b'1'	40.0	b'm'	b'White-European'	b'no'	b'no'
288	b'0'	b'0'	44.0	b'f'	b'White-European'	b'no'	b'no'
200	2 0	2 0		~ 1	5 to Laropoun	~ 110	~ 110

b'no'	b'yes'	b'White-European'	b'm'	56.0	b'1'	b'1'	289
b'no'	b'no'	b'White-European'	b'f'	23.0	b'1'	b'1'	290
b'no'	b'no'	b'Black'	b'f'	32.0	b'1'	b'1'	291
b'yes'	b'no'	b'White-European'	b'm'	27.0	b'1'	b'0'	292
b'yes'	b'no'	b'White-European'	b'f'	28.0	b'1'	b'0'	293
b'no'	b'no'	b"'Middle Eastern '"	b'f'	40.0	b'0'	b'0'	294
b'no'	b'no'	b'White-European'	b'f'	45.0	b'1'	b'1'	295
b'no'	b'yes'	b'White-European'	b'f'	19.0	b'1'	b'1'	296
b'yes'	b'no'	b'White-European'	b'm'	55.0	b'1'	b'1'	297
b'no'	b'yes'	b'White-European'	b'f'	27.0	b'1'	b'0'	298
b'no'	b'yes'	b'White-European'	b'f'	19.0	b'1'	b'1'	299
b'no'	b'no'	b'White-European'	b'm'	29.0	b'0'	b'0'	300
b'no'	b'yes'	b'White-European'	b'f'	33.0	b'1'	b'1'	301
b'no'	b'no'	b'White-European'	b'f'	48.0	b'0'	b'0'	302
b'no'	b'no'	b'Others'	b'f'	37.0	b'0'	b'1'	303
b'no'	b'no'	b'Asian'	b'm'	30.0	b'0'	b'1'	304
b'no'	b'no'	b'White-European'	b'f'	37.0	b'1'	b'0'	305
b'no'	b'no'	b'White-European'	b'f'	28.0	b'1'	b'1'	306
b'no'	b'no'	b'White-European'	b'f'	20.0	b'1'	b'1'	307
b'no'	b'no'	b'Others'	b'f'	25.0	b'1'	b'1'	308
b'no'		b"'Middle Eastern '"	b'f'	58.0	b'0'	b'0'	309
b'no'	b'no'		b'f'	36.0	b'0'	b'0'	310
b'no'	b'no'	b'White-European'	b'm'	36.0	b'0'	b'0'	311
	b'yes'	b'White-European'					312
b'no'	b'no'	b'Hispanic'	b'm'	19.0	b'0'	b'1'	
b'no'	b'no'	b'Hispanic'	b'm'	19.0	b'0'	b'1'	313
b'no'	b'no'	b'White-European'	b'f'	22.0	b'1'	b'0'	314
b'no'	b'no'	b'White-European'	b'm'	20.0	b'0'	b'0'	315
b'no'	b'no'	b"'Middle Eastern '"	b'f'	24.0	b'1'	b'0'	316
b'no'	b'no'	b"'Middle Eastern '"	b'm'	19.0	b'0'	b'1'	317
b'no'	b'no'	b'Others'	b'm'	21.0	b'1'	b'0'	318
b'no'	b'no'	b"'Middle Eastern '"	b'm'	20.0	b'0'	b'0'	319
b'no'	b'no'	b"'Middle Eastern '"	b'f'	18.0	b'0'	b'0'	320
b'no'	b'no'	b"'Middle Eastern '"	b'f'	23.0	b'1'	b'0'	321
b'no'	b'no'	b"'Middle Eastern '"	b'm'	22.0	b'1'	b'0'	322
b'yes'	b'no'	b"'South Asian'"	b'f'	18.0	b'0'	b'0'	323
b'no'	b'no'	b'White-European'	b'f'	37.0	b'1'	b'0'	324
b'no'	b'no'	b"'Middle Eastern '"	b'm'	18.0	b'0'	b'0'	325
b'no'	b'no'	b"'Middle Eastern '"	b'm'	18.0	b'0'	b'0'	326
b'no'	b'no'	b"'Middle Eastern '"	b'm'	18.0	b'0'	b'0'	327
b'no'	b'no'	b"'Middle Eastern '"	b'm'	18.0	b'0'	b'0'	328
b'no'	b'no'	b"'Middle Eastern '"	b'm'	18.0	b'0'	b'0'	329
b'no'	b'no'	b"'Middle Eastern '"	b'm'	18.0	b'0'	b'0'	330
b'no'	b'no'	b'White-European'	b'm'	19.0	b'1'	b'1'	331
b'no'	b'no'	b'White-European'	b'm'	55.0	b'1'	b'1'	332
b'no'	b'no'	b'Asian'	b'f'	32.0	b'1'	b'1'	333
b'no'	b'yes'	b'White-European'	b'm'	50.0	b'0'	b'0'	334
b'no'	b'no'	b'White-European'	b'm'	40.0	b'0'	b'0'	335
b'no'	b'no'	b"'Middle Eastern '"	b'm'	47.0	b'0'	b'0'	336

337	b'0'	b'1'	20.0	b'm'	b'White-European'	b'no'	b'no'
338	b'0'	b'0'	22.0	b'f'	b'White-European'	b'no'	b'no'
339	b'0'	b'0'	21.0	b'f'	b'White-European'	b'no'	b'no'
340	b'1'	b'0'	21.0	b'f'	b'White-European'	b'no'	b'no'
341	b'0'	b'0'	19.0	b'm'	b'White-European'	b'no'	b'no'
342	b'0'	b'0'	21.0	b'f'	b'White-European'	b'no'	b'no'
343	b'0'	b'0'	21.0	b'm'	b'White-European'	b'no'	b'no'
344	b'0'	b'1'	23.0	b'f'	b'White-European'	b'no'	b'no'
345	b'0'	b'0'	21.0	b'm'	b'White-European'	b'no'	b'no'
346	b'1'	b'0'	21.0	b'm'	b'White-European'	b'no'	b'no'
347	b'0'	b'0'	23.0	b'm'	b'White-European'	b'no'	b'no'
348	b'1'	b'1'	20.0	b'f'	b'White-European'	b'no'	b'no'
349	b'0'	b'1'	21.0	b'f'	b'White-European'	b'no'	b'no'
350	b'1'	b'1'	20.0	b'm'	b'White-European'	b'no'	b'no'
					b white haropean		
353	b'0'	b'0'	26.0	b'm'	b'White-European'	b'no'	b'yes'
354	b'0'	b'0'	21.0	b'm'	b'White-European'	b'no'	b'no'
355	b'0'	b'0'	19.0	b'm'	b'White-European'	b'no'	b'no'
356	b'0'	b'1'	22.0	b'm'	b"'Middle Eastern '"	b'no'	b'no'
357	b'0'	b'0'	19.0	b'f'	b"'Middle Eastern '"	b'no'	b'no'
358	b'0'	b'1'	22.0	b'm'	b"'Middle Eastern '"	b'no'	b'no'
359	b'0'	b'1'	20.0	b'm'	b"'Middle Eastern '"	b'no'	b'no'
360	b'0'	b'0'	23.0	b'm'	b"'Middle Eastern '"	b'no'	b'no'
361	b'0'	b'0'	19.0	b'f'	b'White-European'	b'no'	b'no'
362	b'0'	b'1'	20.0	b'm'	b"'Middle Eastern '"	b'no'	b'no'
363	b'0'	b'0'	24.0	b'm'	b"'Middle Eastern '"	b'no'	b'no'
364	b'0'	b'1'	19.0	b'm'	b"'Middle Eastern '"	b'no'	b'no'
365	b'0'	b'1'	20.0	b'm'	b'White-European'	b'no'	b'no'
366	b'0'	b'1'	23.0	b'm'	b"'Middle Eastern '"	b'no'	b'yes'
367	b'0'	b'1'	20.0	b'm'	b'Others'	b'no'	b'no'
368	b'0'	b'1'	20.0	b'm'	b"'Middle Eastern '"	b'no'	b'no'
369	b'1'	b'0'	20.0	b'm'	b'White-European'	b'yes'	b'no'
370	b'0'	b'1'	20.0	b'f'	b'White-European'	b'no'	b'no'
371	b'0'	b'1'	21.0	b'f'	b'Asian'	b'no'	b'no'
372	b'0'	b'1'	19.0	b'm'	b'White-European'	b'no'	b'no'
373	b'0'	b'1'	20.0	b'f'	b"'Middle Eastern '"	b'no'	b'no'
374	b'0'	b'1'	20.0	b'm'	b"'Middle Eastern '"	b'no'	b'no'
375	b'1'	b'0'	25.0	b'm'	b"'Middle Eastern '"	b'yes'	b'yes'
376	b'0'	b'0'	20.0	b'f'	b"'Middle Eastern '"	b'no'	b'no'
377	b'0'	b'1'	22.0	b'm'	b"'Middle Eastern '"	b'no'	b'no'
378	b'0'	b'0'	20.0	b'f'	b'White-European'	b'no'	b'no'
379	b'0'	b'0'	20.0	b'm'	b'White-European'	b'no'	b'no'
380	b'0'	b'0'	20.0	b'f'	b'White-European'	b'no'	b'no'
381	b'0'	b'0'	23.0	b'f'	b'White-European'	b'no'	b'no'
382	b'1'	b'1'	21.0	b'f'	b'White-European'	b'no'	b'no'
383	b'0'	b'1'	22.0	b'm'	b'White-European'	b'no'	b'no'
384	b'0'	b'0'	21.0	b'f'	b'White-European'	b'no'	b'no'
385	b'0'	b'1'	20.0	b'f'	b'White-European'	b'no'	b'no'
500	5 0	D 1	20.0	5 I	n ware parchean	5 110	5 110

b'no'	b'no'	b'White-European'	b'f'	22.0	b'0'	b'0'	386
b'no'	b'yes'	b'White-European'	b'f'	21.0	b'0'	b'0'	387
b'no'	b'no'	b'White-European'	b'f'	20.0	b'0'	b'0'	388
b'no'	b'no'	b"'Middle Eastern '"	b'f'	20.0	b'0'	b'0'	389
b'no'	b'no'	b'White-European'	b'm'	21.0	b'0'	b'0'	390
b'no'	b'no'	b"'Middle Eastern '"	b'm'	21.0	b'1'	b'1'	391
b'no'	b'no'	b"'Middle Eastern '"	b'f'	23.0	b'1'	b'0'	392
b'no'	b'no'	b'Turkish'	b'f'	21.0	b'0'	b'0'	393
b'no'	b'no'	b'Black'	b'f'	22.0	b'1'	b'0'	394
b'no'	b'no'	b'White-European'	b'f'	19.0	b'0'	b'0'	395
b'no'	b'no'	b'Asian'	b'f'	20.0	b'0'	b'0'	396
b'no'	b'no'	b'Others'	b'f'	21.0	b'1'	b'0'	397
b'no'	b'no'	b"'Middle Eastern '"	b'm'	26.0	b'0'	b'0'	398
b'no'	b'no'	b'White-European'	b'f'	19.0	b'0'	b'0'	399
b'no'	b'no'	b'White-European'	b'f'	20.0	b'1'	b'0'	400
b'no'	b'no'	b'White-European'	b'f'	26.0	b'1'	b'0'	401
b'no'	b'no'	b'Black'	b'f'	23.0	b'1'	b'0'	402
b'no'	b'no'	b'White-European'	b'f'	28.0	b'1'	b'0'	403
b'no'	b'no'	b"'Middle Eastern '"	b'f'	19.0	b'0'	b'0'	404
b'no'	b'no'	b"'Middle Eastern '"	b'f'	20.0	b'0'	b'0'	405
b'no'	b'no'	b'Black'	b'f'	19.0	b'1'	b'0'	406
b'no'	b'no'	b'Asian'	b'm'	24.0	b'0'	b'1'	407
b'no'	b'no'	b"'South Asian'"	b'f'	19.0	b'1'	b'0'	408
b'no'	b'no'	b"'Middle Eastern '"	b'f'	22.0	b'0'	b'0'	409
b'no'	b'no'	b"'Middle Eastern '"	b'f'	20.0	b'1'	b'0'	410
b'no'	b'no'	b"'Middle Eastern '"	b'm'	21.0	b'0'	b'0'	411
b'no'	b'no'	b'Others'	b'f'	24.0	b'0'	b'0'	412
b'no'	b'no'	b"'Middle Eastern '"	b'f'	18.0	b'1'	b'0'	413
b'no'	b'no'	b"'Middle Eastern '"	b'f'	19.0	b'1'	b'0'	414
b'no'	b'no'	b"'Middle Eastern '"	b'f'	19.0	b'0'	b'0'	415
b'no'	b'yes'	b"'Middle Eastern '"	b'm'	31.0	b'1'	b'0'	416
b'no'	b'no'	b"'Middle Eastern '"	b'm'	19.0	b'0'	b'0'	417
b'no'	b'no'	b"'Middle Eastern '"	b'f'	21.0	b'1'	b'1'	418
b'no'	b'no'	b"'Middle Eastern '"	b'm'	20.0	b'1'	b'0'	419
b'no'	b'no'	b"'Middle Eastern '"	b'f'	26.0	b'1'	b'0'	420
b'no'	b'no'	b"'Middle Eastern '"	b'm'	27.0	b'0'	b'0'	421
b'no'	b'no'	b"'Middle Eastern '"	b'f'	23.0	b'0'	b'0'	422
b'no'	b'no'	b'White-European'	b'f'	29.0	b'0'	b'0'	423
b'no'	b'no'	b"'Middle Eastern '"	b'm'	23.0	b'0'	b'0'	424
b'no'	b'no'	b'Turkish'	b'm'	23.0	b'1'	b'0'	425
b'yes'	b'no'	b'Asian'	b'm'	24.0	b'1'	b'1'	426
b'no'	b'no'	b'White-European'	b'm'	21.0	b'0'	b'0'	427
b'no'	b'no'	b'White-European'	b'f'	20.0	b'0'	b'0'	428
b'no'	b'no'	b'White-European'	b'm'	20.0	b'0'	b'1'	429
b'no'	b'no'	b'Black'	b'f'	32.0	b'1'	b'1'	430
b'yes'	b'yes'	b'White-European'	b'm'	61.0	b'1'	b'1'	431
b'no'	b'no'	b'White-European'	b'm'	19.0	b'0'	b'0'	432
b'no'	b'no'	b'White-European'	b'f'	35.0	b'0'	b'1'	433
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b'no'	b'no'	b'White-European'	b'f'	34.0	b'1'	b'0'	434
b'no'	b'no'	b"'Middle Eastern '"	b'f'	23.0	b'0'	b'0'	435
b'no'	b'no'	b'White-European'	b'f'	19.0	b'1'	b'0'	436
b'no'	b'no'	b'Others'	b'f'	36.0	b'1'	b'0'	437
b'no'	b'no'	b'White-European'	b'f'	21.0	b'1'	b'0'	438
b'no'	b'no'	b'White-European'	b'm'	23.0	b'0'	b'0'	439
b'no'	b'no'	b'Black'	b'm'	17.0	b'1'	b'0'	440
b'no'	b'no'	b'White-European'	b'm'	22.0	b'0'	b'0'	441
b'yes'	b'no'	b'White-European'	b'm'	33.0	b'1'	b'0'	442
b'no'	b'no'	b'Asian'	b'f'	23.0	b'1'	b'0'	443
b'yes'	b'no'	b'White-European'	b'f'	35.0	b'1'	b'0'	444
b'yes'	b'no'	b'White-European'	b'm'	21.0	b'1'	b'0'	445
b'no'	b'no'	b'White-European'	b'f'	20.0	b'1'	b'1'	446
b'no'	b'no'	b'White-European'	b'm'	29.0	b'0'	b'0'	447
b'no'	b'no'	b'White-European'	b'm'	59.0	b'1'	b'1'	448
b'no'	b'no'	b'White-European'	b'f'	18.0	b'1'	b'0'	449
b'no'	b'no'	b"'Middle Eastern '"	b'f'	19.0	b'0'	b'0'	450
b'no'	b'no'	b"'Middle Eastern '"	b'm'	24.0	b'0'	b'0'	451
b'no'	b'no'	b'White-European'	b'f'	36.0	b'0'	b'1'	452
b'no'	b'yes'	b'White-European'	b'f'	19.0	b'1'	b'0'	453
b'no'	b'no'	b'Black'	b'f'	17.0	b'0'	b'0'	454
b'no'	b'yes'	b'White-European'	b'm'	52.0	b'1'	b'0'	455
b'no'	b'no'	b"'Middle Eastern '"	b'm'	18.0	b'0'	b'0'	456
b'no'	b'no'	b'Asian'	b'm'	30.0	b'0'	b'0'	457
b'no'	b'yes'	b"'Middle Eastern '"	b'm'	18.0	b'1'	b'1'	458
b'no'	b'no'	b'Latino'	b'm'	27.0	b'0'	b'0'	459
b'no'	b'no'	b'White-European'	b'f'	52.0	b'0'	b'0'	460
b'no'	b'no'	b'Asian'	b'f'	45.0	b'0'	b'0'	461
b'no'	b'no'	b'Others'	b'f'	25.0	b'0'	b'1'	462
b'no'	b'no'	b'White-European'	b'f'	29.0	b'1'	b'0'	463
b'no'	b'yes'	b'White-European'	b'f'	29.0	b'1'	b'0'	464
b'yes'	b'no'	b'White-European'	b'm'	18.0	b'1'	b'0'	465
b'no'	b'no'	b'White-European'	b'm'	18.0	b'1'	b'1'	466
b'no'	b'no'	b'White-European'	b'm'	17.0	b'1'	b'0'	467
b'no'	b'no'	b'Asian'	b'f'	27.0	b'1'	b'1'	468
b'no'	b'yes'	b'Asian'	b'f'	22.0	b'0'	b'0'	469
b'no'	b'no'	b'Asian'	b'm'	23.0	b'0'	b'1'	470
b'no'	b'no'	b'Latino'	b'm'	25.0	b'0'	b'0'	471
b'no'	b'no'	b"'South Asian'"	b'f'	23.0	b'0'	b'0'	472
b'no'	b'no'	b'Asian'	b'm'	29.0	b'1'	b'0'	473
b'no'	b'no'	b'Asian'	b'f'	27.0	b'0'	b'0'	474
b'no'	b'no'	b'Asian'	b'f'	27.0	b'0'	b'0'	475
b'no'	b'no'	b"'South Asian'"	b'f'	43.0	b'0'	b'0'	476
b'no'	b'no'	b'Asian'	b'f'	26.0	b'0'	b'0'	477
b'no'	b'no'	b'Asian'	b'f'	30.0	b'1'	b'0'	478
b'no'	b'no'	b'White-European'	b'm'	23.0	b'0'	b'0'	479
b'no'	b'no'	b'Asian'	b'f'	29.0	b'0'	b'0'	480
b'no'	b'no'	b'White-European'	b'm'	37.0	b'1'	b'0'	481
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482	b'0'	b'1'	28.0	b'f'	b'White-European'	b'no'	b'no'
483	b'0'	b'0'	25.0	b'm'	b"'South Asian'"	b'no'	b'no'
484	b'0'	b'0'	25.0	b'm'	b'Others'	b'no'	b'no'
485	b'1'	b'0'	21.0	b'm'	b'White-European'	b'no'	b'no'
486	b'1'	b'1'	43.0	b'm'	b'White-European'	b'no'	b'no'
487	b'1'	b'1'	30.0	b'f'	b'White-European'	b'no'	b'no'
488	b'0'	b'1'	18.0	b'm'	b'Black'	b'no'	b'no'
489	b'0'	b'0'	18.0	b'f'	b'White-European'	b'no'	b'no'
490	b'1'	b'0'	30.0	b'm'	b'Others'	b'no'	b'no'
491	b'0'	b'0'	31.0	b'f'	b'White-European'	b'no'	b'no'
492	b'0'	b'1'	33.0	b'm'	b'Latino'	b'no'	b'no'
493	b'1'	b'1'	33.0	b'm'	b'Latino'	b'no'	b'no'
494	b'0'	b'1'	26.0	b'm'	b'White-European'	b'no'	b'no'
495	b'0'	b'0'	61.0	b'f'	b'White-European'	b'no'	b'no'
496	b'0'	b'1'	46.0	b'm'	b'Others'	b'no'	b'no'
497	b'1'	b'1'	33.0	b'm'	b'Asian'	b'no'	b'no'
498	b'0'	b'1'	38.0	b'f'	b'Black'	b'no'	b'no'
499	b'0'	b'0'	44.0	b'm'	b'Black'	b'no'	b'no'
500	b'1'	b'0'	48.0	b'f'	b'Black'	b'no'	b'yes'
501	b'1'	b'1'	42.0	b'f'	b'Latino'	b'yes'	b'no'
502	b'0'	b'0'	37.0	b'm'	b'White-European'	b'no'	b'no'
503	b'0'	b'1'	23.0	b'f'	b'White-European'	b'no'	b'yes'
504	b'1'	b'1'	24.0	b'm'	b'White-European'	b'no'	b'yes'
505	b'0'	b'1'	41.0	b'm'	b'White-European'	b'yes'	b'yes'
506	b'0'	b'1'	41.0	b'm'	b'Asian'	b'no'	b'no'
507	b'0'	b'0'	27.0	b'm'	b'White-European'	b'no'	b'no'
508	b'1'	b'1'	46.0	b'f'	b'White-European'	b'yes'	b'yes'
509	b'0'	b'1'	40.0	b'f'	b'White-European'	b'yes'	b'no'
510	b'0'	b'1'	22.0	b'f'	b'White-European'	b'no'	b'no'
511	b'1'	b'1'	42.0	b'm'	b'White-European'	b'no'	b'no'
512	b'0'	b'1'	18.0	b'f'	b'Asian'	b'no'	b'no'
513	b'0'	b'0'	44.0	b'f'	b'White-European'	b'no'	b'no'
514	b'1'	b'1'	30.0	b'f'	b'White-European'	b'no'	b'no'
515	b'1'	b'1'	42.0	b'm'	b'White-European'	b'no'	b'no'
516	b'0'	b'0'	35.0	b'f'	b'White-European'	b'no'	b'yes'
517	b'1'	b'1'	40.0	b'm'	b'Black'	b'no'	b'no'
518	b'1'	b'1'	50.0	b'f'	b'White-European'	b'no'	b'no'
519	b'0'	b'1'	38.0	b'm'	b"'Middle Eastern '"	b'no'	b'no'
520	b'1'	b'1'	26.0	b'f'	b'White-European'	b'no'	b'yes'
521	b'0'	b'1'	27.0	b'f'	b'White-European'	b'no'	b'no'
522	b'1'	b'0'	47.0	b'f'	b'White-European'	b'yes'	b'yes'
523	b'0'	b'1'	21.0	b'm'	b'Black'	b'yes'	b'yes'
524	b'1'	b'1'	37.0	b'm'	b'White-European'	b'no'	b'no'
525	b'0'	b'1'	19.0	b'f'	b'Others'	b'no'	b'no'
526	b'0'	b'1'	32.0	b'm'	b'Asian'	b'no'	b'no'
527	b'0'	b'1'	26.0	b'f'	b'White-European'	b'no'	b'no'
528	b'1'	b'1'	46.0	b'f'	b'White-European'	b'yes'	b'yes'
529	b'0'	b'0'	29.0	b'm'	b'Black'	b'no'	b'no'

b'no'	b'no'	b'Black'	b'f'	30.0	b'0'	b'0'	530
b'no'	b'no'	b'Latino'	b'f'	32.0	b'0'	b'0'	531
b'no'	b'yes'	b'White-European'	b'f'	35.0	b'1'	b'0'	532
b'no'	b'no'	b'White-European'	b'm'	22.0	b'1'	b'1'	533
b'no'	b'no'	b'White-European'	b'f'	19.0	b'1'	b'0'	534
b'no'	b'no'	b'White-European'	b'm'	24.0	b'1'	b'0'	535
b'no'	b'no'	b'White-European'	b'f'	52.0	b'0'	b'0'	536
b'no'	b'no'	b'White-European'	b'm'	52.0	b'1'	b'1'	537
b'no'	b'no'	b'White-European'	b'f'	32.0	b'0'	b'0'	538
b'no'	b'no'	b'White-European'	b'm'	24.0	b'1'	b'0'	539
b'no'	b'no'	b'White-European'	b'm'	24.0	b'1'	b'1'	540
b'no'	b'yes'	b"'Middle Eastern '"	b'f'	49.0	b'0'	b'0'	541
b'no'	b'no'	b'Asian'	b'f'	30.0	b'1'	b'1'	542
b'yes'	b'no'	b'Asian'	b'f'	30.0	b'1'	b'1'	543
b'no'	b'yes'	b'White-European'	b'f'	35.0	b'1'	b'1'	544
b'no'	b'yes'	b'White-European'	b'f'	35.0	b'1'	b'0'	545
b'yes'	b'no'	b'White-European'	b'f'	37.0	b'1'	b'0'	546
b'no'	b'no'	b'White-European'	b'm'	43.0	b'1'	b'0'	547
b'no'	b'no'	b'White-European'	b'm'	52.0	b'1'	b'0'	548
b'yes'	b'no'	b'White-European'	b'm'	44.0	b'1'	b'1'	549
b'yes'	b'no'	b'White-European'	b'f'	46.0	b'0'	b'0'	550
b'yes'	b'no'	b'White-European'	b'f'	42.0	b'1'	b'0'	551
b'no'	b'no'	b'Asian'	b'm'	20.0	b'0'	b'0'	552
b'no'	b'no'	b"'Middle Eastern '"	b'm'	18.0	b'1'	b'1'	553
b'no'	b'no'	b'White-European'	b'm'	38.0	b'1'	b'1'	554
b'yes'	b'no'	b'Latino'	b'f'	24.0	b'0'	b'0'	555
b'no'	b'no'	b'White-European'	b'm'	32.0	b'0'	b'0'	556
b'no'	b'no'	b'Turkish'	b'm'	29.0	b'0'	b'0'	557
b'no'	b'no'	b'White-European'	b'f'	22.0	b'1'	b'0'	558
b'no'	b'yes'	b'White-European'	b'f'	19.0	b'1'	b'0'	559
b'yes'	b'no'	b'White-European'	b'f'	39.0	b'1'	b'1'	560
b'no'	b'no'	b'Black'	b'm'	17.0	b'1'	b'1'	561
b'no'	b'no'	b"'Middle Eastern '"	b'f'	19.0	b'1'	b'1'	562
b'no'	b'no'	b'White-European'	b'm'	18.0	b'0'	b'1'	563
b'no'	b'no'	b'White-European'	b'm'	19.0	b'0'	b'1'	564
b'no'	b'no'	b'Turkish'	b'f'	28.0	b'0'	b'0'	565
b'no'	b'no'	b'Asian'	b'm'	29.0	b'1'	b'0'	566
b'no'	b'no'	b'White-European'	b'm'	48.0	b'0'	b'0'	567
b'yes'	b'yes'	b'White-European'	b'f'	27.0	b'1'	b'1'	568
b'no'	b'no'	b'White-European'	b'f'	34.0	b'0'	b'0'	569
b'no'	b'no'	b'White-European'	b'm'	31.0	b'1'	b'0'	570
b'no'	b'no'	b'White-European'	b'm'	47.0	b'1'	b'0'	571
b'no'	b'no'	b'White-European'	b'm'	47.0	b'0'	b'0'	572
b'yes'	b'no'	b'White-European'	b'm'	44.0	b'1'	b'1'	573
b'no'	b'no'	b'White-European'	b'f'	25.0	b'0'	b'0'	574
b'no'	b'no'	b'White-European'	b'f'	25.0	b'0'	b'0'	575
b'no'	b'no'	b'White-European'	b'm'	20.0	b'1'	b'1'	576
b'no'	b'yes'	b'White-European'	b'm'	43.0	b'1'	b'1'	577
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578	b'1'	b'1'	36.0	b'f'	b'White-European'	b'no'	b'yes'
579	b'0'	b'0'	30.0	b'f'	b'Asian'	b'no'	b'yes'
580	b'0'	b'0'	44.0	b'm'	b'Black'	b'no'	b'no'
581	b'0'	b'1'	40.0	b'f'	b'Black'	b'no'	b'no'
582	b'1'	b'0'	40.0	b'f'	b'Black'	b'yes'	b'no'
583	b'1'	b'0'	40.0	b'f'	b'Black'	b'yes'	b'yes'
584	b'0'	b'1'	30.0	b'm'	b'Others'	b'no'	b'no'
585	b'0'	b'1'	47.0	b'f'	b'White-European'	b'no'	b'no'
586	b'1'	b'1'	21.0	b'm'	b'Black'	b'no'	b'no'
587	b'1'	b'1'	21.0	b'm'	b'Black'	b'no'	b'no'
588	b'1'	b'1'	31.0	b'f'	b'White-European'	b'no'	b'no'
589	b'0'	b'0'	21.0	b'f'	b'Asian'	b'no'	b'no'
590	b'1'	b'0'	29.0	b'f'	b'Asian'	b'no'	b'no'
591	b'1'	b'0'	22.0	b'm'	b"'Middle Eastern '"	b'no'	b'no'
592	b'1'	b'1'	51.0	b'm'	b'White-European'	b'yes'	b'no'
593	b'0'	b'0'	23.0	b'm'	b'White-European'	b'no'	b'no'
594	b'1'	b'1'	30.0	b'm'	b'Asian'	b'no'	b'no'
595	b'0'	b'0'	22.0	b'm'	b'Others'	b'no'	b'no'
596	b'0'	b'1'	22.0	b'm'	b'Asian'	b'no'	b'no'
597	b'0'	b'1'	24.0	b'm'	b'Asian'	b'no'	b'no'
598	b'0'	b'1'	26.0	b'f'	b"'South Asian'"	b'no'	b'no'
599	b'1'	b'1'	33.0	b'f'	b'Asian'	b'no'	b'no'
600	b'1'	b'0'	23.0	b'm'	b'Asian'	b'no'	b'no'
601	b'0'	b'0'	42.0	b'f'	b'Asian'	b'no'	b'no'
602	b'0'	b'0'	26.0	b'f'	b'Asian'	b'no'	b'no'
603	b'0'	b'0'	29.0	b'f'	b'Asian'	b'no'	b'no'
604	b'0'	b'1'	35.0	b'f'	b'Asian'	b'no'	b'no'
605	b'0'	b'0'	25.0	b'f'	b"'South Asian'"	b'no'	b'no'
606	b'0'	b'0'	25.0	b'm'	b'Asian'	b'no'	b'no'
607	b'0'	b'0'	28.0	b'f'	b'Asian'	b'yes'	b'no'
608	b'0'	b'0'	33.0	b'm'	b'White-European'	b'no'	b'no'
609	b'0'	b'0'	25.0	b'm'	b'Asian'	b'no'	b'no'
610	b'0'	b'1'	25.0	b'm'	b'Asian'	b'no'	b'no'
611	b'0'	b'0'	24.0	b'm'	b'Asian'	b'no'	b'no'
612	b'0'	b'1'	27.0	b'f'	b"'South Asian'"	b'no'	b'no'
613	b'0'	b'0'	22.0	b'm'	b"'South Asian'"	b'no'	b'no'
614	b'0'	b'1'	21.0	b'f'	b"'South Asian'"	b'no'	b'no'
615	b'0'	b'1'	27.0	b'f'	b"'South Asian'"	b'no'	b'no'
616	b'0'	b'0'	23.0	b'm'	b"'South Asian'"	b'no'	b'no'
617	b'0'	b'1'	22.0	b'm'	b'Asian'	b'no'	b'no'
618	b'0'	b'1'	23.0	b'f'	b"'South Asian'"	b'no'	b'no'
619	b'0'	b'1'	30.0	b'm'	b'Asian'	b'no'	b'no'
620	b'0'	b'0'	33.0	b'm'	b'Asian'	b'no'	b'no'
621	b'1'	b'0'	24.0	b'f'	b"'South Asian'"	b'no'	b'no'
622	b'0'	b'0'	22.0	b'f'	b'Asian'	b'no'	b'no'
623	b'1'	b'1'	22.0	b'm'	b'Asian'	b'no'	b'no'
624	b'0'	b'1'	29.0	b'f'	b"'South Asian'"	b'no'	b'no'
625	b'0'	b'1'	22.0	b'f'	b'Asian'	b'no'	b'no'
525	2 0	₽ 1	-2.0	~ 1	5 Abian	2 110	2 110

626	b'0'	b'0'	21.0	b'm'	b'Asian'	b'yes'	b'no'
627	b'0'	b'0'	23.0	b'm'	b'Asian'	b'no'	b'no'
628	b'0'	b'1'	23.0	b'f'	b'Others'	b'no'	b'no'
629	b'1'	b'1'	23.0	b'f'	b'Asian'	b'no'	b'no'
630	b'0'	b'0'	32.0	b'm'	b'Asian'	b'no'	b'no'
631	b'0'	b'1'	27.0	b'm'	b'Asian'	b'no'	b'no'
632	b'0'	b'0'	28.0	b'f'	b'Asian'	b'no'	b'no'
633	b'1'	b'1'	25.0	b'f'	b"'Middle Eastern '"	b'no'	b'no'
634	b'1'	b'1'	22.0	b'm'	b'Black'	b'no'	b'no'
635	b'0'	b'1'	36.0	b'm'	b'White-European'	b'no'	b'no'
636	b'0'	b'0'	27.0	b'f'	b'White-European'	b'no'	b'no'
637	b'1'	b'1'	21.0	b'f'	b'White-European'	b'no'	b'no'
638	b'0'	b'0'	18.0	b'm'	b'Black'	b'no'	b'no'
639	b'1'	b'1'	49.0	b'm'	b'Black'	b'no'	b'no'
640	b'0'	b'0'	18.0	b'm'	b'Asian'	b'no'	b'no'
641	b'1'	b'0'	29.0	b'm'	b'Latino'	b'no'	b'no'
642	b'0'	b'0'	31.0	b'f'	b'White-European'	b'no'	b'no'
643	b'0'	b'0'	37.0	b'f'	b"'Middle Eastern '"	b'no'	b'no'
644	b'0'	b'1'	17.0	b'm'	b"'Middle Eastern '"	b'yes'	b'no'
645	b'1'	b'1'	17.0	b'm'	b'White-European'	b'no'	b'yes'
646	b'0'	b'0'	38.0	b'f'	b"'Middle Eastern '"	b'no'	b'no'
647	b'0'	b'1'	18.0	b'm'	b'White-European'	b'yes'	b'no'
648	b'0'	b'0'	31.0	b'f'	b"'Middle Eastern '"	b'no'	b'no'
649	b'0'	b'0'	33.0	b'm'	b"'Middle Eastern '"	b'yes'	b'no'
650	b'0'	b'0'	32.0	b'f'	b"'Middle Eastern '"	b'yes'	b'no'
651	b'0'	b'1'	30.0	b'm'	b'White-European'	b'yes'	b'no'
652	b'0'	b'1'	33.0	b'f'		b'no'	b'no'
653	b'1'	b'1'	30.0	b'f'	b'White-European' b'White-European'	b'no'	b'yes'
654	b'1'	b'1'	30.0	b'm'	b'Asian'	b'no'	b'no'
655	b'0'	b'1'	38.0	b'f'	b'White-European'	b'no'	b'yes'
656	b'1'	b'1'	22.0	b'm'	b'Asian'	b'no'	b'no'
657	b'1'	b'0'	36.0	b'm'	b'others'	b'no'	b'no'
658	b'0'	b'0'	43.0	b'm'	b'White-European'	b'no'	b'no'
659	b'1'	b'1'		b'm'		b'no'	b'no'
660	b'1'	b'1'	44.0 20.0	b'f'	b'White-European'		
	b'1'	b'1'	40.0	b'f'	b'White-European' b'Others'	b'no'	b'no'
661 662	b'1'	b'0'	25.0	b'm'		b'yes'	b'yes'
	b'0'	b'1'		b'm'	b'White-European'	b'no'	b'no'
663	b'0'	b'1'	28.0	b'm'	b'White-European'	b'no'	b'no'
664		b'1'	17.0		b'White-European'	b'no'	b'no'
665	b'1'	b'0'	34.0	b'm'	b'White-European'	b'no'	b'no'
666	b'0'		56.0	b'm'	b'White-European'	b'no'	b'no'
667	b'0'	b'0'	50.0	b'f'	b"'Middle Eastern '"	b'no'	b'no'
668	b'0'	b'1'	38.0	b'm'	b'White-European'	b'no'	b'no'
669	b'1'	b'1'	47.0	b'm'	b'White-European'	b'no'	b'no'
670	b'1'	b'1'	30.0	b'm'	b'Others'	b'no'	b'no'
671	b'0'	b'1'	21.0	b'm'	b'Hispanic'	b'no'	b'no'
672	b'0'	b'1'	21.0	b'm'	b'White-European'	b'no'	b'no'
673	b'1'	b'1'	31.0	b'm'	b'Latino'	b'no'	b'no'

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674
         b'0'
                    b'1'
                           27.0
                                   b'f'
                                                                   b'yes'
                                                                             b'no'
                                             b'White-European'
                    b'0'
                           24.0
                                   b'f'
675
         b'1'
                                             b'White-European'
                                                                   b'yes'
                                                                             b'no'
676
         b'0'
                    b'1'
                           35.0
                                   b'm'
                                             b'White-European'
                                                                   b'yes'
                                                                             b'no'
677
         b'0'
                    b'1'
                           18.0
                                                       b'Black'
                                   b'm'
                                                                    b'no'
                                                                             b'no'
                    b'1'
678
         b'1'
                           43.0
                                   b'f'
                                                       b'Black'
                                                                    b'no'
                                                                             b'no'
                    b'1'
679
         b'1'
                           44.0
                                   b'm'
                                             b'White-European'
                                                                    b'no'
                                                                            b'yes'
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         b'1'
                    b'1'
                           40.0
                                   b'm'
                                             b'White-European'
                                                                   b'yes'
                                                                            b'yes'
681
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                    b'1'
                           49.0
                                   b'f'
                                                    b'Hispanic'
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                                                                             b'no'
         b'0'
                    b'0'
                           24.0
682
                                   b'm'
                                                    b'Hispanic'
                                                                    b'no'
                                                                             b'no'
683
         b'1'
                    b'0'
                           30.0
                                   b'f'
                                             b'White-European'
                                                                   b'yes'
                                                                            b'yes'
         b'0'
                    b'1'
                           53.0
684
                                   b'm'
                                                                    b'no'
                                                                             b'no'
                                                    b'Hispanic'
         b'1'
                    b'1'
685
                           38.0
                                   b'm'
                                             b'White-European'
                                                                    b'no'
                                                                            b'yes'
                    b'1'
686
         b'0'
                           28.0
                                   b'm'
                                                                    b'no'
                                                                             b'no'
                                             b'White-European'
                    b'1'
687
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                           28.0
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                                             b'White-European'
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                    b'1'
688
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                           26.0
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                                                       b'Black'
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                                                                             b'no'
689
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                    b'1'
                           39.0
                                   b'f'
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690
         b'0'
                    b'0'
                           31.0
                                   b'f'
                                                       b'Asian'
                                                                   b'yes'
                                                                             b'no'
691
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                    b'0'
                           24.0
                                                       b'Black'
                                   b'm'
                                                                    b'no'
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692
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                    b'1'
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                                   b'm'
                                                                    b'no'
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                                             b'White-European'
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                    b'1'
                           31.0
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                                                      b'Latino'
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                                   b'm'
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697
         b'0'
                    b'1'
                           46.0
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698
         b'1'
                    b'1'
                           27.0
                                   b'f'
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         b'1'
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                    b'1'
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                                   b'm'
                                                    b'Hispanic'
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                                                                             b'no'
         b'0'
                    b'1'
701
                           24.0
                                   b'f'
                                             b'White-European'
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702
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                    b'1'
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                                   b'm'
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                    b'1'
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                         b'Spain'
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                      b'Bahamas'
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15
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17
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53
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56
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58
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59
                   b'Australia'
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                                                       5.0
60
                      b'Canada'
                                            b'no'
                                                       8.0
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61
                      b'Canada'
                                           b'yes'
                                                       7.0
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                                                            b"'18 and more'"
62
              b"'Saudi Arabia'"
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                                                       0.0
63
                   b'Australia'
                                            b'no'
                                                       5.0
                                                           b"'18 and more'"
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65	b"'United States'"	b'no'	3.0	b"'18 and more'"
66	b'France'	b'no'	2.0	b"'18 and more'"
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68	b"'Saudi Arabia'"	b'no'	4.0	b"'18 and more'"
69	b"'New Zealand'"	b'no'	1.0	b"'18 and more'"
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71	b"'New Zealand'"	b'no'	3.0	b"'18 and more'"
72	b"'United States'"	b'no'	6.0	b"'18 and more'"
73	b"'United States'"	b'no'	6.0	b"'18 and more'"
74	b"'United States'"	b'no'	6.0	b"'18 and more'"
75	b"'United States'"	b'no'	7.0	b"'18 and more'"
76	b"'United States'"	b'no'	3.0	b"'18 and more'"
77	b"'United States'"	b'no'	8.0	b"'18 and more'"
78	b"'United States'"	b'no'	4.0	b"'18 and more'"
79	b'Jordan'	b'no'	2.0	b"'18 and more'"
80	b'Afghanistan'	b'no'	5.0	b"'18 and more'"
81	b'Jordan'		3.0	b"'18 and more'"
		b'no'		
82	b'Netherlands'	b'no'	10.0	b"'18 and more'"
83	b'Jordan'	b'no'	4.0	b"'18 and more'"
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86	b'Afghanistan'	b'no'	8.0	b"'18 and more'"
87	b"'United Kingdom'"	b'no'	1.0	b"'18 and more'"
88	b"'United Kingdom'"	b'no'	4.0	b"'18 and more'"
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90	b'Romania'	b'no'	4.0	b"'18 and more'"
91	b'Jordan'	b'no'	4.0	b"'18 and more'"
92	b"'New Zealand'"	b'no'	5.0	b"'18 and more'"
93	b'Brazil'	b'no'	8.0	b"'18 and more'"
94	b'Sweden'	b'no'	8.0	b"'18 and more'"
95	b"'United Kingdom'"	b'no'	4.0	b"'18 and more'"
96	b'Australia'	b'no'	4.0	b"'18 and more'"
97	b"'New Zealand'"	b'no'	4.0	b"'18 and more'"
98	b'Tonga'	b'no'	3.0	b"'18 and more'"
99	b'Oman'	b'no'	1.0	b"'18 and more'"
100	b'India'	b'no'	3.0	b"'18 and more'"
101	b'Philippines'	b'no'	2.0	b"'18 and more'"
102	b"'New Zealand'"	b'no'	3.0	b"'18 and more'"
103	b'India'	b'no'	5.0	b"'18 and more'"
104	b'India'	b'no'	4.0	b"'18 and more'"
105	b'India'	b'no'	0.0	b"'18 and more'"
105	b"'New Zealand'"	b'no'	6.0	b"'18 and more'"
107	b"'United States'"	b'no'	7.0	b"'18 and more'"
107	b" United States" b'India'			b"'18 and more'"
		b'no'	5.0	
109	b'India'	b'no'	3.0	b"'18 and more'"
110	b"'New Zealand'"	b'no'	9.0	b"'18 and more'"
111	b"'United Kingdom'"	b'no'	6.0	b"'18 and more'"

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112
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                                            b'no'
                                                       3.0
               b"'New Zealand'"
                                                            b"'18 and more'"
113
                                            b'no'
                                                       4.0
114
     b"'United Arab Emirates'"
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                                            b'no'
                                                       8.0
           b"'United Kingdom'"
                                                       7.0
                                                            b"'18 and more'"
115
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            b"'United States'"
                                                            b"'18 and more'"
116
                                            b'no'
                                                       8.0
             b"'United States'"
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117
                                            b'no'
                                                       6.0
118
                      b'Canada'
                                            b'no'
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119
             b"'United States'"
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                                                       7.0
                                                            b"'18 and more'"
           b"'United Kingdom'"
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120
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126
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132
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136
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138
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139
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141
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145
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146
                   b'Australia'
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                                            b'no'
147
                     b'Romania'
                                            b'no'
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148
             b"'United States'"
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149
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154
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                                                            b"'18 and more'"
               b"'New Zealand'"
155
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                                                       3.0
                 b"'Sri Lanka'"
156
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                                                            b"'18 and more'"
                                            b'no'
157
                 b"'Sri Lanka'"
                                            b'no'
                                                       4.0
                                                            b"'18 and more'"
158
                       b'India'
                                            b'no'
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                                                            b"'18 and more'"
159
                       b'India'
                                                       3.0
                                                            b"'18 and more'"
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160
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161
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162
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                 b"'Sri Lanka'"
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163
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164
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165
                                            b'no'
                                                       5.0
166
                       b'India'
                                            b'no'
                                                       4.0
                                                            b"'18 and more'"
167
                 b"'Sri Lanka'"
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303	b"'United Kingdom'"	D IIO	∠.∪	n to and more

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626	b'India'	b'no'	3.0	b"'18 and more'"
627	b'India'	b'no'	3.0	b"'18 and more'"
628	b'India'	b'no'	5.0	b"'18 and more'"
629	b'India'	b'no'	6.0	b"'18 and more'"
630	b"'Sri Lanka'"	b'no'	6.0	b"'18 and more'"
631	b"'Sri Lanka'"	b'no'	2.0	b"'18 and more'"
632	b'India'	b'no'	2.0	b"'18 and more'"
633	b'India'	b'no'	6.0	b"'18 and more'"
634	b'Nepal'	b'no'	7.0	b"'18 and more'"
635	b"'United Kingdom'"	b'no'	4.0	b"'18 and more'"
636	b'Russia'	b'no'	0.0	b"'18 and more'"
637			10.0	b"'18 and more'"
	b'Germany'	b'no'		
638	b"'United States'"	b'no'	5.0	b"'18 and more'"
639	b'Mexico'	b'no'	7.0	b"'18 and more'"
640	b'Indonesia'	b'no'	4.0	b"'18 and more'"

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641
             b"'United States'"
                                                       7.0 b"'18 and more'"
                                            b'no'
642
               b"'New Zealand'"
                                                            b"'18 and more'"
                                            b'no'
                                                       2.0
643
               b"'New Zealand'"
                                            b'no'
                                                            b"'18 and more'"
                                                       1.0
644
               b"'New Zealand'"
                                                       6.0
                                                            b"'18 and more'"
                                            b'no'
               b"'New Zealand'"
                                                            b"'18 and more'"
645
                                            b'no'
                                                       7.0
                                                            b"'18 and more'"
646
                      b'Jordan'
                                            b'no'
                                                       4.0
647
                      b'Angola'
                                            b'no'
                                                       5.0
                                                            b"'18 and more'"
648
     b"'United Arab Emirates'"
                                            b'no'
                                                       4.0
                                                            b"'18 and more'"
     b"'United Arab Emirates'"
                                                            b"'18 and more'"
649
                                           b'yes'
                                                       3.0
                                                            b"'18 and more'"
650
                      b' Jordan'
                                            b'no'
                                                       2.0
                                                            b"'18 and more'"
651
                      b'Jordan'
                                                       3.0
                                            b'no'
652
             b"'United States'"
                                                            b"'18 and more'"
                                            b'no'
                                                       1.0
653
                                                            b"'18 and more'"
                      b'Canada'
                                                      10.0
                                            b'no'
                                                            b"'18 and more'"
654
             b"'United States'"
                                            b'no'
                                                       9.0
655
           b"'United Kingdom'"
                                            b'no'
                                                       5.0
                                                            b"'18 and more'"
656
                                                       5.0
                                                            b"'18 and more'"
                       b'India'
                                            b'no'
657
             b"'United States'"
                                            b'no'
                                                       5.0
                                                            b"'18 and more'"
                  b'Azerbaijan'
658
                                                       3.0
                                                            b"'18 and more'"
                                            b'no'
                                                            b"'18 and more'"
                    b'Pakistan'
659
                                            b'no'
                                                       8.0
660
                      b'France'
                                                       8.0
                                                            b"'18 and more'"
                                            b'no'
661
                   b'Australia'
                                            b'no'
                                                       9.0
                                                            b"'18 and more'"
                                                            b"'18 and more'"
662
                       b'Italy'
                                            b'no'
                                                       5.0
663
                   b'Australia'
                                            b'no'
                                                       4.0
                                                            b"'18 and more'"
664
                      b'Canada'
                                                            b"'18 and more'"
                                            b'no'
                                                       3.0
665
             b"'United States'"
                                                       9.0
                                                            b"'18 and more'"
                                            b'no'
                                            b'no'
                                                            b"'18 and more'"
666
                        b'Iraq'
                                                       1.0
667
               b"'New Zealand'"
                                                            b"'18 and more'"
                                            b'no'
                                                       3.0
             b"'United States'"
                                                            b"'18 and more'"
668
                                            b'no'
                                                       4.0
669
             b"'United States'"
                                                      10.0
                                                            b"'18 and more'"
                                            b'no'
670
             b"'United States'"
                                                       9.0
                                                            b"'18 and more'"
                                            b'no'
671
             b"'United States'"
                                                       7.0
                                                            b"'18 and more'"
                                            b'no'
672
                     b'Ireland'
                                            b'no'
                                                       8.0
                                                            b"'18 and more'"
673
                      b'Mexico'
                                            b'no'
                                                       8.0
                                                            b"'18 and more'"
674
           b"'Czech Republic'"
                                                       6.0
                                                            b"'18 and more'"
                                            b'no'
            b"'United States'"
                                                            b"'18 and more'"
675
                                                       5.0
                                            b'no'
676
           b"'United Kingdom'"
                                            b'no'
                                                       4.0
                                                            b"'18 and more'"
                                                            b"'18 and more'"
677
                    b'Ethiopia'
                                            b'no'
                                                       3.0
678
            b"'United States'"
                                                       8.0
                                                            b"'18 and more'"
                                            b'no'
679
                                                            b"'18 and more'"
                 b'Afghanistan'
                                            b'no'
                                                      10.0
                                                            b"'18 and more'"
680
           b"'United Kingdom'"
                                            b'no'
                                                      10.0
681
            b"'United States'"
                                                       9.0
                                                            b"'18 and more'"
                                            b'no'
             b"'United States'"
682
                                                            b"'18 and more'"
                                            b'no'
                                                       3.0
683
             b"'United States'"
                                                       4.0
                                                            b"'18 and more'"
                                            b'no'
             b"'United States'"
                                                            b"'18 and more'"
684
                                            b'no'
                                                       4.0
685
                     b'Belgium'
                                                       7.0
                                                            b"'18 and more'"
                                            b'no'
686
             b"'United States'"
                                            b'no'
                                                       5.0
                                                            b"'18 and more'"
687
             b"'United States'"
                                            b'no'
                                                       9.0
                                                            b"'18 and more'"
688
                      b'Canada'
                                            b'no'
                                                       8.0
                                                            b"'18 and more'"
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689
                      b'Canada'
                                            b'no'
                                                      7.0 b"'18 and more'"
690
                       b'India'
                                            b'no'
                                                      1.0
                                                           b"'18 and more'"
691
            b"'United States'"
                                                           b"'18 and more'"
                                            b'no'
                                                      4.0
692
            b"'United States'"
                                                      8.0
                                                           b"'18 and more'"
                                            b'no'
                                                           b"'18 and more'"
693
           b"'United Kingdom'"
                                                      4.0
                                            b'no'
                                                           b"'18 and more'"
694
            b"'United States'"
                                                      7.0
                                            b'no'
695
                      b'Brazil'
                                           b'yes'
                                                      5.0
                                                           b"'18 and more'"
                                                           b"'18 and more'"
696
                   b'Australia'
                                            b'no'
                                                      9.0
697
                 b'Philippines'
                                            b'no'
                                                      6.0
                                                           b"'18 and more'"
698
                                                           b"'18 and more'"
                   b'Australia'
                                            b'no'
                                                     10.0
699
                                                      7.0
                                                           b"'18 and more'"
                      b'Russia'
                                            b'no'
700
                      b'Mexico'
                                                      3.0
                                                           b"'18 and more'"
                                            b'no'
701
                                                      7.0
                                                           b"'18 and more'"
                      b'Russia'
                                            b'no'
702
                                                      6.0
                                                           b"'18 and more'"
                    b'Pakistan'
                                            b'no'
                                                      8.0 b"'18 and more'"
703
                      b'Cyprus'
                                            b'no'
                            relation Class/ASD
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b'Self' b'NO' 0 1 b'Self' b'NO' 2 b'Parent' b'YES' 3 b'Self' b'NO' 4 b'Self' b'NO' 5 b'Self' b'YES' 6 b'Self' b'NO' 7 b'Parent' b'NO' 8 b'Self' b'NO' 9 b"'Health care professional'" b'YES' 10 b'YES' b'Relative' 11 b'Parent' b'NO' 12 b'Self' b'NO' 13 b'Self' b'NO' 14 b'Self' b'NO' 15 b'Parent' b'NO' 16 b'Self' b'NO' 17 b'Self' b'NO' 18 b'Self' b'NO' 19 b'Self' b'NO' 20 b'Self' b'NO' 21 b'Self' b'NO' 22 b'Self' b'NO' 23 b'Relative' b'NO' 24 b'Self' b'NO' 25 b'Self' b'NO' 26 b'Self' b'NO' 27 b'Parent' b'NO' 28 b'Self' b'NO' 29 b'Self' b'NO'

30

b'NO'

b'Self'

31	b'Self'	b'YES'
32	b'Self'	b'N0'
33	b'Self'	b'YES'
34	b'Self'	b'YES'
35	b'Self'	b'N0'
36	b'Self'	b'N0'
37	b'Self'	b'N0'
38	b'Self'	b'YES'
39	b'Self'	b'YES'
40	b'Self'	b'YES'
41	b'Self'	b'NO'
42	b'Self'	b'N0'
43	b'Self'	b'NO'
44	b'Self'	b'YES'
45	b'Relative'	b'YES'
46	b'Relative'	b'NO'
47	b'Relative'	b'N0'
48	b'Relative'	b'NO'
49	b'Self'	b'NO'
50	b'Self'	b'NO'
51	b'Parent'	b'YES'
52	b'Self'	b'NO'
53	b'Self'	b'YES'
54	b'Self'	b'YES'
55	b'Self'	b'YES'
56	b'Self'	b'YES'
57	b'Self'	b'YES'
58	b'Self'	b'NO'
59	b'Self'	b'NO'
60	b'Self'	b'YES'
61	b'Self'	b'YES'
62	b'Self'	b'NO'
63		b'NO'
64	b'Parent' b'Self'	b'YES'
65	b'Self'	
		b'NO'
66	b'Parent'	b'NO'
67	b'Self'	b'NO'
68	b'Self'	b'NO'
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74	b'Self'	b'NO'
75	b'Self'	b'YES'
76	b'Self'	b'NO'
77	b'Self'	b'YES'
78	b'Self'	b'N0'

79	b'Self'	b'N0'
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81	b'Self'	b'NO'
82	b'Self'	b'YES'
83	b'Self'	b'NO'
84	b'Self'	b'NO'
85	b'Self'	b'NO'
86	b'Parent'	b'YES'
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99	b'Self'	b'NO'
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106	b'Self'	b'NO'
107	b'Self'	b'YES'
108	b'Parent'	b'NO'
109	b'Parent'	b'NO'
110	b'Self'	b'YES'
111	b'Self'	b'NO'
112	b'Parent'	b'NO'
113	b'Self'	b'NO'
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116	b'Self'	b'YES'
117	b'Self'	b'NO'
118	b'Self'	b'YES'
119	b'Self'	b'YES'
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121	b'Self'	b'YES'
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123	b'Self'	b'YES'
124	b'Self'	b'YES'
125	b'Self'	b'YES'
126	b'Self'	b'NO'

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129	b'Relative'	b'NO'
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132	b'Self'	b'NO'
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144	b'Self'	b'NO'
145	b'Parent'	b'YES'
146	b'Self'	b'YES'
147	b'Self'	b'YES'
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150	b'Self'	b'N0'
151	b'Self'	b'YES'
152	b'Self'	b'N0'
153	b'Self'	b'N0'
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159	b'Self'	b'NO'
160	b'Parent'	b'NO'
161	b'Self'	b'NO'
162	b'Self'	b'NO'
	b'Self'	
163		b'NO'
164	b'Self'	b'N0'
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166	b'Self'	b'N0'
167	b'Self'	b'N0'
168	b'Self'	b'N0'
169	b'Self'	b'YES'
170	b'Self'	b'N0'
171	b'Self'	b'NO'
172	b'Self'	b'NO'
173	b'Parent'	b'NO'
174	b'Self'	b'NO'

175	b'Self'	b'N0'
176	b'Self'	b'YES'
177	b'Self'	b'N0'
178	b'Self'	b'N0'
179	b'Self'	b'NO'
180	b'Self'	b'NO'
181	b'Self'	b'NO'
182	b'Others'	b'N0'
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185	b'Self'	b'YES'
186	b'Self'	b'NO'
187	b'Self'	b'NO'
188	b'Self'	b'YES'
189	b'Self'	b'NO'
190	b'Self'	b'YES'
191	b'Parent'	b'NO'
192	b'Self'	b'N0'
193	b'Self'	b'NO'
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195	b'Self'	b'YES'
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198	b'Self'	b'YES'
199	b'Self'	b'NO'
200	b'Self'	b'YES'
201	b'Self'	b'NO'
202	b'Self'	b'YES'
203	b'Relative'	b'YES'
204	b'Self'	b'NO'
205	b'Self'	b'YES'
206	b'Parent'	b'YES'
207	b'Self'	b'YES'
208	b'Self'	
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210	b'Self'	b'YES'
211	b'Self'	b'NO'
212	b'Self'	b'NO'
213	b'Self'	b'N0'
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215	b'Self'	b'YES'
216	b'Self'	b'N0'
217	b'Parent'	b'NO'
218	b'Self'	b'YES'
219	b'Parent'	b'N0'
220	b'Self'	b'N0'
221	b'Self'	b'N0'
222	b'Self'	b'N0'

223	b'Self'	b'YES'
224	b'Self'	b'YES'
225	b'Self'	b'NO'
226	b'Relative'	b'YES'
227	b'Self'	b'NO'
228	b'Self'	b'NO'
229	b'Self'	b'YES'
230	b'Self'	b'NO'
231	b'Self'	b'NO'
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274	b'Self'	b'N0'
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278	b'Self'	b'YES'
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281	b'Self'	b'YES'
282	b'Parent'	b'YES'
283	b'Self'	b'YES'
284	b'Self'	b'NO'
285	b'Self'	b'NO'
286	b'Self'	b'NO'
287	b'Self'	b'N0'
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292	b'Self'	b'NO'
293	b'Self'	b'NO'
294	b'Parent'	b'NO'
295	b'Self'	b'YES'
296	b'Parent'	b'YES'
297	b'Others'	b'YES'
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299	b'Self'	b'YES'
300	b'Self'	b'NO'
301	b'Self'	b'YES'
302	b'Self'	b'NO'
303	b'Self'	b'NO'
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305	b'Self'	b'N0'
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312	b'Self'	b'YES'
313	b'Self'	b'YES'
314	b'Self'	b'NO'
315	b'Self'	b'NO'
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322	b'Self'	b'YES'
323	b'Self'	b'N0'
324	b'Self'	b'N0'
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326	b'Relative'	b'N0'
327	b'Relative'	b'N0'
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332	b'Self'	b'YES'
333	b'Parent'	b'NO'
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347	b'Self'	b'NO'
348	b'Self'	b'YES'
349	b'Self'	b'NO'
350	b'Self'	b'YES'
• •	• • •	• • •
353	b'Self'	b'N0'
354	b'Self'	b'N0'
355	b'Self'	b'N0'
356	b'Parent'	b'N0'
357	b'Self'	b'N0'
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359	b'Self'	b'N0'
360	b'Self'	b'N0'
361	b'Self'	b'N0'
362	b'Parent'	b'N0'
363	b'Self'	b'N0'
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365	b'Self'	b'NO'
366	b'Self'	b'NO'
367	b'Self'	b'NO'

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371	b'Self'	b'NO'
372	b'Self'	b'NO'
373	b'Self'	b'N0'
374	b'Self'	b'NO'
375	b'Relative'	b'NO'
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380	b'Self'	b'NO'
381	b'Self'	b'NO'
382	b'Self'	b'YES'
383	b'Self'	b'NO'
384	b'Self'	b'NO'
385	b'Self'	b'NO'
386	b'Self'	b'NO'
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400	b'Self'	b'NO'
401	b'Self'	b'NO'
402	b'Self'	b'NO'
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404	b'Self'	b'NO'
405	b'Self'	b'N0'
406	b'Self'	b'NO'
407	b'Self'	b'YES'
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410	b'Self'	b'NO'
410		
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412	b'Self'	b'NO'
413	b'Self'	b'NO'
414	b'Self'	b'YES'
415	b'Self'	b'N0'

416	b'Self'	b'N0'
417	b'Self'	b'N0'
418	b'Self'	b'N0'
419	b'Self'	b'NO'
420	b'Self'	b'NO'
421	b'Self'	b'NO'
422	b'Self'	b'NO'
423	b'Self'	b'NO'
424	b'Self'	b'NO'
425	b'Others'	b'NO'
426	b'Self'	b'YES'
427	b'Self'	b'NO'
428	b'Self'	b'NO'
429	b'Self'	b'NO'
430	b'Parent'	b'YES'
431	b'Self'	b'YES'
432	b'Self'	b'NO'
433	b'Self'	b'YES'
434	b'Self'	b'NO'
435	b'Self'	b'NO'
436	b'Self'	b'NO'
437	b'Parent'	b'NO'
438	b'Self'	b'NO'
439	b'Self'	b'NO'
440	b'Relative'	b'NO'
441	b'Self'	b'NO'
442	b'Relative'	b'NO'
443	b'Self'	b'YES'
444	b'Self'	b'YES'
445	b'Self'	b'NO'
446	b'Self'	b'YES'
447	b"'Health care professional'"	b'NO'
448	b'Self'	b'YES'
449	b'Self'	b'NO'
450	b'Self'	b'NO'
451	b'Self'	b'NO'
452	b'Self'	b'YES'
453	b'Self'	b'NO'
454	b'Self'	b'NO'
455	b'Self'	b'NO'
456	b'Self'	b'NO'
457	b'Self'	b'NO'
45 <i>1</i> 458	b'Self'	b'YES'
458 459	b'Self'	b'NO'
460	b'Self'	b'NO'
461	b'Self'	b'NO'
462	b"'Health care professional'"	b'NO'
463	b'Self'	b'N0'

464	b'Self'	b'YES'
465	b'Self'	b'N0'
466	b'Relative'	b'YES'
467	b'Relative'	b'N0'
468	b'Self'	b'YES'
469	b'Self'	b'NO'
470	b'Self'	b'N0'
471	b'Self'	b'YES'
472	b'Self'	b'N0'
473	b'Self'	b'N0'
474	b'Self'	b'N0'
475	b'Self'	b'NO'
476	b'Parent'	b'N0'
477	b'Self'	b'N0'
478	b'Self'	b'N0'
479	b'Self'	b'NO'
480	b'Self'	b'N0'
481	b'Parent'	b'NO'
482	b'Self'	b'NO'
483	b'Self'	b'NO'
484	b'Self'	b'NO'
485	b'Self'	b'NO'
486	b'Self'	b'YES'
487	b'Self'	b'YES'
488	b'Self'	b'NO'
489	b'Self'	b'NO'
490	b'Self'	b'YES'
490	b'Self'	b'NO'
491	b'Self'	
492	b'Self'	b'NO'
		b'YES'
494	b'Self'	b'N0'
495	b'Self'	b'N0'
496	b'Self'	b'NO'
497	b'Self'	b'YES'
498	b'Self'	b'YES'
499	b'Parent'	b'NO'
500	b'Parent'	b'NO'
501	b'Self'	b'YES'
502	b'Self'	b'N0'
503	b'Self'	b'N0'
504	b'Relative'	b'YES'
505	b'Self'	b'NO'
506	b'Self'	b'N0'
507	b'Self'	b'N0'
508	b'Self'	b'YES'
509	b'Self'	b'N0'
510	b'Self'	b'YES'
511	b'Self'	b'YES'

512	b'Self'	b'NO'
513	b'Self'	b'NO'
514	b'Self'	b'YES'
515	b'Self'	b'YES'
516	b'Parent'	b'NO'
517	b'Self'	b'YES'
518	b'Self'	b'N0'
519	b'Self'	b'N0'
520	b'Self'	b'YES'
521	b'Self'	b'YES'
522	b'Self'	b'YES'
523	b'Parent'	b'NO'
524	b'Self'	b'YES'
525	b'Self'	b'NO'
526	b'Self'	b'NO'
527	b'Self'	b'NO'
528	b'Self'	b'YES'
529	b'Self'	b'NO'
530	b'Self'	b'NO'
531	b'Relative'	b'NO'
532	b'Self'	b'NO'
533	b'Self'	b'YES'
534	b'Self'	b'NO'
535	b'Self'	b'NO'
536	b'Self'	b'NO'
537	b'Self'	b'NO'
538	b'Self'	b'NO'
539	b'Relative'	b'NO'
540	b'Relative'	b'YES'
541	b'Parent'	b'NO'
542	b'Self'	b'YES'
543	b'Self'	b'YES'
544	b'Self'	b'YES'
545	b'Self'	b'YES'
546	b'Self'	b'NO'
547	b'Self'	b'NO'
54 <i>1</i> 548	b'Self'	b'NO'
549	b'Self'	b'YES'
550 551	b'Self' b'Self'	b'NO'
		b'N0'
552	b'Self'	b'NO'
553	b'Self'	b'YES'
554	b'Relative'	b'YES'
555	b'Self'	b'NO'
556	b'Self'	b'NO'
557	b'Self'	b'N0'
558	b'Self'	b'YES'
559	b'Self'	b'N0'

560	b'Self'	b'YES'
561	b'Self'	b'YES'
562	b'Parent'	b'N0'
563	b'Parent'	b'NO'
564	b'Self'	b'NO'
565	b'Self'	b'N0'
566	b'Self'	b'N0'
567	b'Self'	b'N0'
568	b'Self'	b'YES'
569	b'Self'	b'N0'
570	b'Self'	b'NO'
571	b'Self'	b'NO'
572	b'Self'	b'NO'
573	b'Self'	b'YES'
574	b'Self'	b'N0'
575	b'Self'	b'NO'
576	b'Self'	b'YES'
577	b'Self'	b'YES'
578	b'Self'	b'YES'
579	b'Self'	b'NO'
580	b'Self'	b'NO'
581	b'Parent'	b'NO'
582	b'Relative'	b'NO'
583	b'Relative	b'YES'
584	b'Self'	b'YES'
585	b'Self'	b'NO'
586	b'Self'	b'YES'
	b'Self'	
587		b'YES'
588	b'Self' b'Self'	b'YES'
589		b'NO'
590	b'Self'	b'NO'
591	b'Self'	b'NO'
592	b'Self'	b'YES'
593	b'Self'	b'NO'
594	b'Self'	b'NO'
595	b'Self'	b'NO'
596	b'Self'	b'NO'
597	b'Self'	b'NO'
598	b'Self'	b'N0'
599	b'Parent'	b'NO'
600	b'Self'	b'N0'
601	b'Self'	b'N0'
602	b'Self'	b'NO'
603	b'Self'	b'NO'
604	b'Self'	b'N0'
605	b'Self'	b'N0'
606	b'Self'	b'N0'
607	b'Self'	b'NO'

608	b'Self'	b'NO'
609	b'Self'	b'NO'
610	b'Self'	b'NO'
611	b'Self'	b'NO'
612	b'Self'	b'NO'
613	b'Self'	b'NO'
614	b'Self'	b'NO'
615	b'Self'	b'NO'
616	b'Self'	b'NO'
617	b'Self'	b'NO'
618	b'Self'	b'NO'
619	b'Self'	b'NO'
620	b'Self'	b'NO'
621	b'Self'	b'YES'
622	b'Self'	b'NO'
623	b'Self'	b'YES'
624	b'Self'	b'N0'
625	b'Self'	b'NO'
626	b'Self'	b'NO'
627	b'Self'	b'NO'
628	b'Self'	b'NO'
629	b'Self'	b'NO'
630	b'Self'	b'NO'
631	b'Self'	b'NO'
632	b'Parent'	b'NO'
633	b'Self'	b'NO'
634	b'Self'	
635	b'Self'	b'YES'
636		b'NO'
637	b'Self'	b'NO' b'YES'
	b'Self'	
638	b'Self'	b'NO'
639	b'Parent'	b'YES'
640	b'Self'	b'NO'
641	b'Self'	b'YES'
642	b'Self'	b'NO'
643	b'Parent'	b'NO'
644	b'Parent'	b'NO'
645	b'Self'	b'YES'
646	b'Self'	b'NO'
647	b'Parent'	b'NO'
648	b'Self'	b'NO'
649	b'Self'	b'N0'
650	b'Self'	b'N0'
651	b'Self'	b'N0'
652	b'Self'	b'N0'
653	b'Self'	b'YES'
654	b'Self'	b'YES'
655	b'Self'	b'N0'

656	b'Self'	b'N0'
657	b'Self'	b'N0'
658	b'Self'	b'N0'
659	b'Self'	b'YES'
660	b'Self'	b'YES'
661	b'Self'	b'YES'
662	b'Self'	b'N0'
663	b'Self'	b'N0'
664	b'Self'	b'N0'
665	b'Self'	b'YES'
666	b'Self'	b'NO'
667	b'Parent'	b'NO'
668	b'Self'	b'NO'
669	b'Self'	b'YES'
670	b'Self'	b'YES'
671	b'Self'	b'YES'
672	b'Self'	b'YES'
673	b'Self'	b'YES'
674	b'Self'	b'NO'
675	b'Self'	b'NO'
676	b'Parent'	b'NO'
677	b"'Health care professional'"	b'NO'
678	b hearth care professional b'Self'	b'YES'
679	b'Self'	b'YES'
680		
	b'Parent'	b'YES'
681	b'Self'	b'YES'
682	b'Self'	b'NO'
683	b'Self'	b'NO'
684	b'Relative'	b'NO'
685	b'Self'	b'YES'
686	b'Self'	b'NO'
687	b'Self'	b'YES'
688	b'Self'	b'YES'
689	b'Self'	b'YES'
690	b'Self'	b'N0'
691	b'Self'	b'N0'
692	b'Self'	b'YES'
693	b'Self'	b'N0'
694	b'Self'	b'YES'
695	b'Parent'	b'N0'
696	b'Self'	b'YES'
697	b'Self'	b'N0'
698	b'Self'	b'YES'
699	b'Self'	b'YES'
700	b'Parent'	b'N0'
701	b'Self'	b'YES'
702	b'Self'	b'N0'
703	b'Self'	b'YES'

3.0.15 Pronto!!! Não temos mais dados incompletos. Só felicidade!

```
In [21]: dataset.isnull().values.any()
Out[21]: False
In [22]: dataset.describe()
Out[22]:
                              result
                      age
        count 704.000000 704.000000
                29.184659
                            4.875000
        mean
                 9.691837
                            2.501493
        std
        min
                17.000000
                          0.000000
        25%
                21.000000
                            3.000000
                          4.000000
        50%
                27.000000
        75%
                35.000000
                           7.000000
                64.000000
                           10.000000
        max
```

3.0.16 Convertendo os scores de strings para valores numéricos...

```
In [24]: dataset[columns_score] = dataset[columns_score].apply(pd.to_numeric)
```

3.0.17 Transformando os dados do atributo gênero...

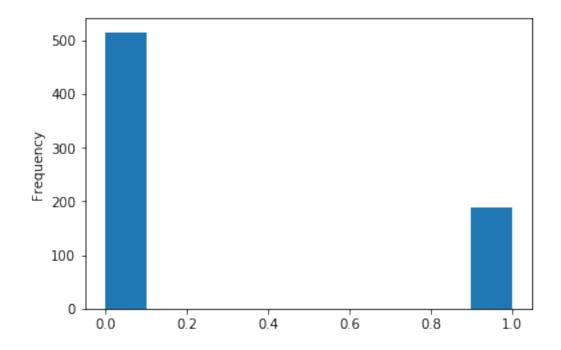
3.0.18 Transformando os dados do atributo jaundice...

3.0.19 Transformando os dados do atributo austim...

3.0.20 Transformando os dados do atributo ethnicity...

3.0.21 Transformando a Class/ASD...

3.0.22 Balanceando as classes...



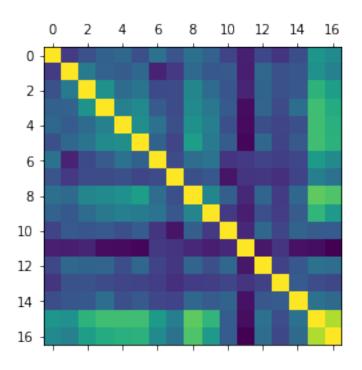
3.0.23 Salvando os dados transformados para usar ao separar os datasets em treinamento e em teste...

```
In [36]: # Entradas e saída transformadas e balanceadas do dataset
         nX = dataset_downsampled.iloc[:, [10,11,12,13,14,17]].values
         ny = dataset_downsampled.iloc[:, 20].values
         # Dividindo o dataset para treinamento e para teste
         X train, X test, y_train, y_test = train_test_split(nX, ny, test_size= 0.2, random_state)
In [37]: dataset_downsampled.describe()
Out [37]:
                   A1_Score
                                                                                  A6_Score
                               A2_Score
                                            A3_Score
                                                         A4_Score
                                                                      A5_Score
                378.000000
                             378.000000
                                          378.000000
                                                       378.000000
                                                                   378.000000
                                                                                378.000000
         count
                                                                     0.674603
                                                                                  0.436508
                   0.783069
                               0.542328
                                            0.584656
                                                         0.616402
         mean
                   0.412702
                               0.498865
                                                         0.486906
                                                                     0.469144
                                                                                  0.496610
         std
                                            0.493434
         min
                   0.00000
                               0.000000
                                            0.000000
                                                         0.000000
                                                                     0.000000
                                                                                  0.000000
         25%
                   1.000000
                               0.000000
                                            0.000000
                                                         0.000000
                                                                     0.000000
                                                                                  0.000000
         50%
                   1.000000
                               1.000000
                                            1.000000
                                                         1.000000
                                                                     1.000000
                                                                                  0.00000
         75%
                   1.000000
                               1.000000
                                            1.000000
                                                         1.000000
                                                                      1.000000
                                                                                  1.000000
                   1.000000
                               1.000000
                                            1.000000
                                                         1.000000
                                                                      1.000000
                                                                                  1.000000
         max
                   A7_Score
                                            A9_Score
                                                        A10_Score
                                                                                    gender
                               A8_Score
                                                                           age
                378.000000
                             378.000000
                                          378.000000
                                                       378.000000
                                                                                378.000000
                                                                    378.000000
         mean
                   0.510582
                               0.714286
                                            0.476190
                                                         0.671958
                                                                     29.626984
                                                                                  0.542328
                   0.500551
                               0.452353
                                            0.500095
                                                         0.470123
                                                                     9.956990
                                                                                  0.498865
         std
         min
                   0.000000
                               0.000000
                                            0.000000
                                                         0.000000
                                                                     17.000000
                                                                                  0.00000
         25%
                   0.000000
                               0.000000
                                            0.000000
                                                         0.000000
                                                                     21.250000
                                                                                  0.00000
         50%
                   1.000000
                               1.000000
                                            0.000000
                                                         1.000000
                                                                     27.000000
                                                                                  1.000000
         75%
                   1.000000
                               1.000000
                                                                     36.000000
                                                                                  1.000000
                                            1.000000
                                                         1.000000
                   1.000000
                               1.000000
                                            1.000000
                                                         1.000000
                                                                     64.000000
                                                                                  1.000000
         max
                  ethnicity
                                jundice
                                              austim
                                                           result
                                                                     Class/ASD
                378.000000
                             378.000000
                                          378.000000
                                                       378.000000
                                                                   378.000000
         count
         mean
                   5.968254
                               0.121693
                                            0.145503
                                                         6.010582
                                                                     0.500000
         std
                   3.496728
                               0.327364
                                            0.353074
                                                         2.626107
                                                                     0.500663
                               0.000000
                                            0.000000
                                                         0.000000
         min
                   0.000000
                                                                     0.000000
         25%
                   2.000000
                               0.000000
                                            0.000000
                                                         4.000000
                                                                     0.000000
         50%
                   9.000000
                               0.000000
                                            0.000000
                                                         6.500000
                                                                     0.500000
         75%
                   9.000000
                               0.000000
                                            0.000000
                                                         8.000000
                                                                      1.000000
                  10.000000
                               1.000000
                                            1.000000
                                                        10.000000
                                                                      1.000000
         max
```

3.0.24 Plotando o gráfico de correlação dos atributos depois de transformados...

```
In [38]: plt.matshow(dataset_downsampled.corr())
```

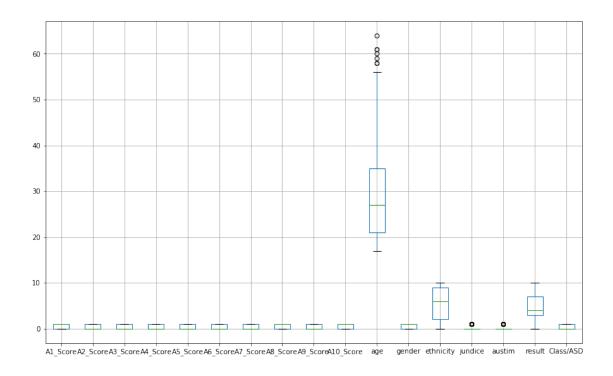
Out[38]: <matplotlib.image.AxesImage at 0x7f8cff27bb38>



3.0.25 Box Plot

```
In [39]: # Aumentar o tamanho do plot na proporção 8/13
    x_size = 14
    y_size = x_size * (8/13)
    plt.figure(figsize=(x_size, y_size))
    dataset.boxplot()
```

Out[39]: <matplotlib.axes._subplots.AxesSubplot at 0x7f8cff2b46a0>



3.0.26 Calculando as correlações entre os principais atributos do dataset não balanceado...

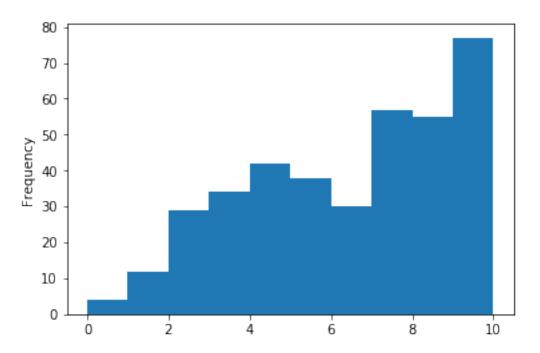
```
In [40]: dataset['age'].corr(dataset['gender'])
Out[40]: -0.032815526183335914
In [41]: dataset['gender'].corr(dataset['ethnicity'])
Out[41]: -0.07866649940122147
In [42]: dataset['ethnicity'].corr(dataset['jundice'])
Out[42]: 0.0886701099213223
In [43]: dataset['jundice'].corr(dataset['austim'])
Out[43]: 0.1577930738661408
In [44]: dataset['austim'].corr(dataset['result'])
Out[44]: 0.19203293304513375
In [45]: dataset['result'].corr(dataset['Class/ASD'])
Out[45]: 0.8214454241251392
```

3.0.27 Calculando as correlações entre os principais atributos do dataset balanceado...

```
In [46]: dataset_downsampled['age'].corr(dataset_downsampled['gender'])
Out[46]: -0.03766446394379984
In [47]: dataset_downsampled['gender'].corr(dataset_downsampled['ethnicity'])
Out[47]: -0.09806627359942534
In [48]: dataset_downsampled['ethnicity'].corr(dataset_downsampled['jundice'])
Out[48]: 0.056679696193340325
In [49]: dataset_downsampled['jundice'].corr(dataset_downsampled['austim'])
Out[49]: 0.1676845735156486
In [50]: dataset_downsampled['austim'].corr(dataset_downsampled['result'])
Out[50]: 0.2615241629286854
In [51]: dataset_downsampled['result'].corr(dataset_downsampled['Class/ASD'])
Out[51]: 0.8594300921861192
```

3.0.28 Plotando os histogramas dos atributos a serem usados futuramente...

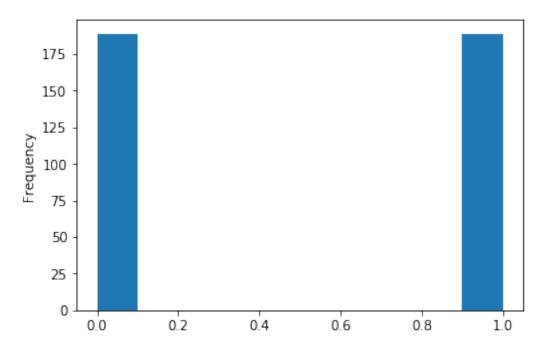
```
In [52]: dataset_downsampled['result'].plot(kind='hist')
Out[52]: <matplotlib.axes._subplots.AxesSubplot at 0x7f8cfd649ef0>
```



3.0.29 Observação importante: as classificações estão balanceadas.

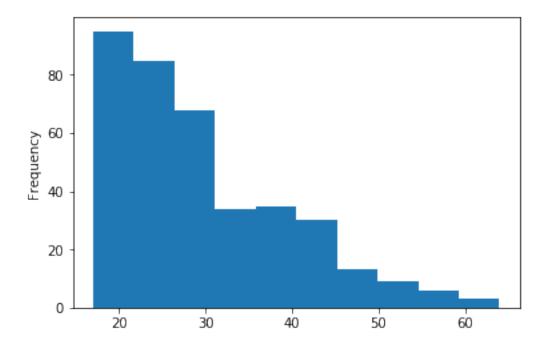
In [53]: dataset_downsampled['Class/ASD'].plot(kind='hist')

Out[53]: <matplotlib.axes._subplots.AxesSubplot at 0x7f8cff274748>

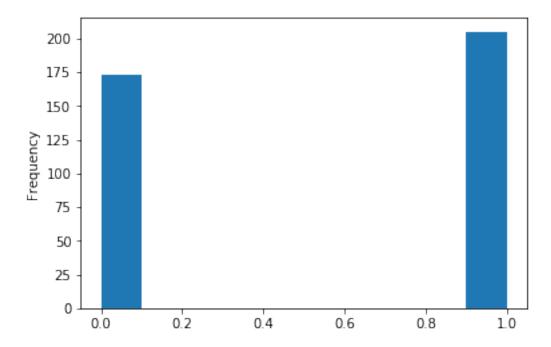


In [54]: dataset_downsampled['age'].plot(kind='hist')

Out[54]: <matplotlib.axes._subplots.AxesSubplot at 0x7f8cfd911f98>



```
In [55]: dataset_downsampled['gender'].plot(kind='hist')
Out[55]: <matplotlib.axes._subplots.AxesSubplot at 0x7f8cfd800d68>
```



3.0.30 Alterando a escala dos dados para que nenhum deles seja menos relevante do que o outro na fase de treinamento do aprendizado de máquina.

4 2. K-Nearest Neighbors (K-NN)

No reconhecimento de padrões, o algoritmo k-vizinhos mais próximos (K-NN) é um método não paramétrico utilizado para classificação e regressão. Em ambos os casos, a entrada consiste nos exemplos de treinamento dos k vizinhos no espaço. A saída depende se o K-NN é usado para classificação ou regressão:

Na classificação K-NN, a saída é a indicação de qual classe aquele determinado objeto pertence. Um objeto é classificado por um voto majoritário dos seus vizinhos, com o objeto sendo associado à classe mais comum entre aqueles k-vizinhos mais próximos (k é um inteiro positivo, tipicamente pequeno). Se k = 1, então o objeto é simplesmente designado à classe daquele vizinho mais próximo.

Referência: https://en.wikipedia.org/wiki/K-nearest_neighbors_algorithm

4.0.1 Realizando o fitting do K-NN para o set de treinamento

Por padrão da biblioteca, a quantidade de vizinhos é configurada para 5. A métrica padrão também é Minkowski. O p indica o parâmetro de qual distância deve ser computada. Escolhemos trabalhar com distância euclidiana nesse caso. Referência: http://scikit-learn.org/stable/modules/generated/sklearn.neighbors.KNeighborsClassifier.html#sklearn-neighbors-kneighborsclassifier

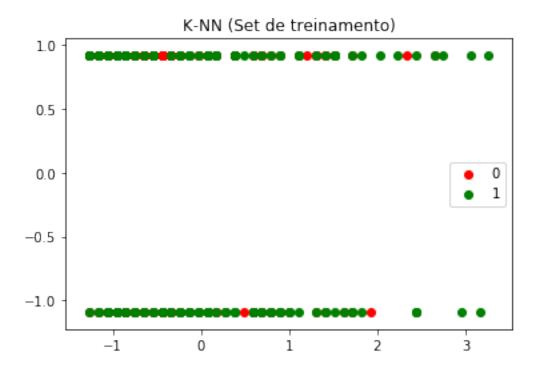
4.0.2 Prevendo os resultados do set de testes

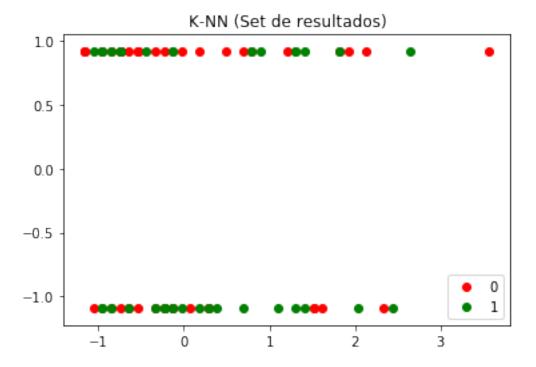
```
In [58]: y_pred = classifier.predict(X_test)
```

4.0.3 Matriz de Confusão

Com a matriz de confusão percebemos os Falsos Positivos (FP), Falsos Negativos (FN), Verdadeiros Positivos (VP), Verdadeiros Negativos (VN). Na linha 1 da matriz de confusão temos o VN e o FN. Na linha 2 temos o FP e o VP. Referência: https://www.dataschool.io/simpleguide-to-confusion-matrix-terminology/

4.0.4 Visualizando os resultados do set de treinamento





4.0.5 Acurácia

Pontuação de classificação de acurácia.

Em uma classificação multirotulada, essa função computa a precisão do subconjunto: o conjunto de rótulos previsto para uma amostra deve corresponder exatamente ao conjunto de rótulos em y_true.

Referência: http://scikit-learn.org/stable/modules/generated/sklearn.metrics.accuracy_score.html#sklearn

0.9605263157894737

4.0.6 Métrica F1

Computa a pontuação F1.

A pontuação F1 pode ser interpretada como uma média ponderada da precisão e recordação. A pontuação F1 atinge seu melhor valor em 1 e o pior em 0. A contribuição relativa da precisão e recordação são iguais à pontuação F1. A fórmula para a pontuação F1 é:

F1 = 2 * (precisão * recordação) / (precisão + recordação)

Nos casos de multiclasse e multirótulos, essa é a média da pontuação F1 de cada classe com pesos dependendo do parâmetro médio.

Referência: http://scikit-learn.org/stable/modules/generated/sklearn.metrics.f1_score.html#sklearn.metric

4.0.7 Bônus: realizando o fitting do K-NN para o set de treinamento

Utilizaremos o k = 302.

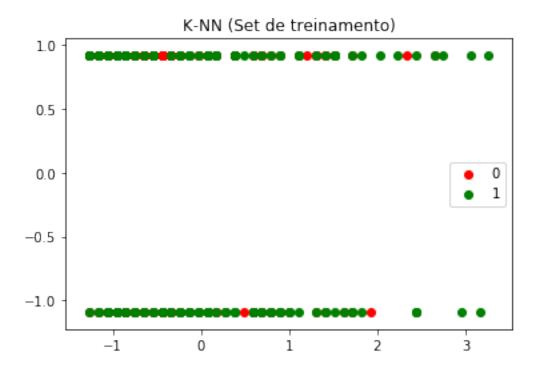
4.0.8 Prevendo os resultados do set de testes

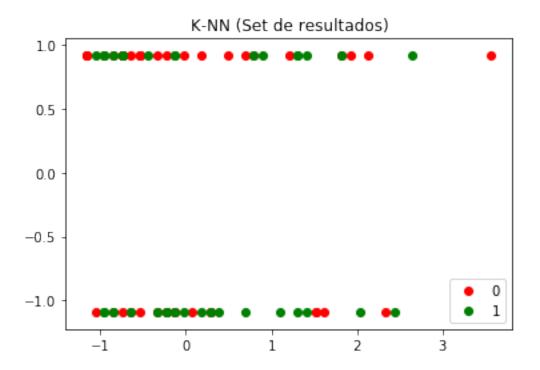
```
In [65]: y_pred = classifier.predict(X_test)
```

4.0.9 Matriz de Confusão

Com o resultado abaixo percebemos que foram classificados 0 como Verdadeiros Negativos (VN), porém 42 foram classificados como Falsos Negativos (FN). Por fim, 0 como FP e 34 como VP.

4.0.10 Visualizando os resultados do set de treinamento





4.0.11 Acurácia

0.4473684210526316

4.0.12 Métrica F1

```
In [70]: from sklearn.metrics import f1_score
    f1score = f1_score(y_test, y_pred)
    print(f1score)
```

0.61818181818182

5 3. SVM

Em aprendizado de máquina, support vector machines (SVM) são modelos de aprendizado supervisionados com algoritmos de aprendizado associados que analisam o dado usado para a classificação e regressão. Dado um conjunto de exemplos de treinamento, cada um marcado como pertencente a uma ou outra categoria, um algoritmo de treinamento SVM constrói um modelo que atribui novos exemplos a uma categoria ou à outra, tornando ele um classificador binário linear não-probabilístico. Um modelo SVM é uma representação dos exemplos como pontos no espaço, mapeados a fim de que os exemplos das categorias separadas são divididos claramente por um espaço que é o maior possível.

Referência: https://en.wikipedia.org/wiki/Support_vector_machine Referência: http://scikit-learn.org/stable/modules/svm.html

5.0.1 Realizando o fitting do SVM para o conjunto de treinamento

O SVC foi utilizado pois trata-se de um problema com multirótulos, ou seja, mais de uma classe, o que de fato acontece, pois temos duas classes: doente e saudável.

O tipo do kernel escolhido foi o linear, ou seja, os objetos a serem preditos devem ser separados de forma linear entre dois rótulos ou duas classes.

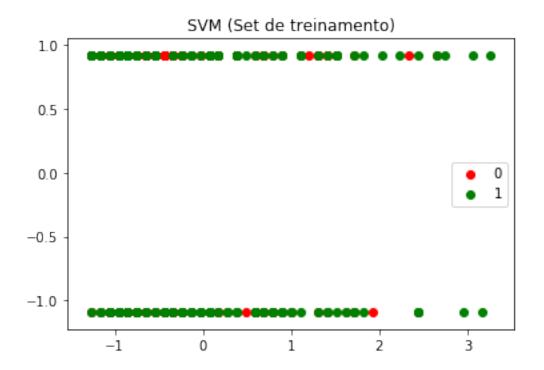
Referência: http://scikit-learn.org/stable/modules/generated/sklearn.svm.SVC.html#sklearn.svm.SVC

5.0.2 Prevendo os resultados do conjunto de testes

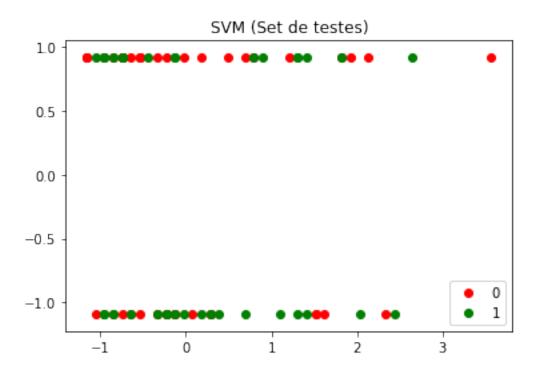
```
In [72]: y_pred = classifier.predict(X_test)
```

5.0.3 Construindo a matriz de confusão

5.0.4 Plotando os resultados do conjunto de treinamento



5.0.5 Plotando os resultados do conjunto de testes



5.0.6 Acurácia

5.0.7 Métrica F1

5.0.8 Bônus: realizando o fitting do SVM para o conjunto de treinamento

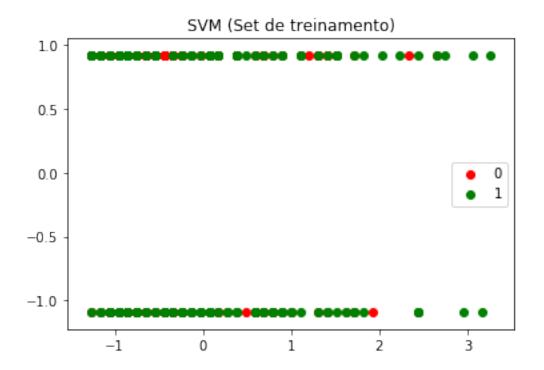
Trocaremos o kernel para sigmoid, ou seja, sigmoidal. A ideia é que o algoritmo de aprendizado de máquina consiga ser capaz de separar de forma sigmoidal as nossas duas classes. Percebemos que se o problema já foi resolvido satisfatoriamente de forma linear, todos os outros kernels possuirão um resultado satisfatório.

5.0.9 Prevendo os resultados do conjunto de testes

```
In [79]: y_pred = classifier.predict(X_test)
```

5.0.10 Construindo a matriz de confusão

5.0.11 Plotando os resultados do conjunto de treinamento



5.0.12 Plotando os resultados do conjunto de testes



5.0.13 Acurácia

0.9605263157894737

5.0.14 Métrica F1

0.9577464788732395