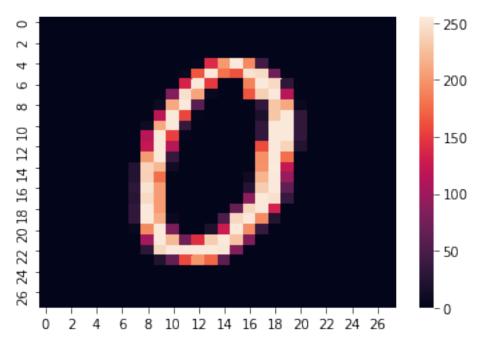
```
import pandas as pd
import seaborn as sns
df = pd.read_csv('train.csv')
df.head()
   label pixel0 pixel1 pixel2 pixel3 pixel4 pixel5 pixel6
pixel7
       \
       1
1
       0
                0
                        0
                                 0
                                          0
                                                   0
                                                           0
                                                                    0
0
2
       1
                0
                        0
                                 0
                                          0
                                                           0
                                                                    0
0
3
                                                           0
                                                                    0
       4
0
4
       0
                                                                    0
                                 0
                                                           0
0
   pixel8 ... pixel774 pixel775
                                      pixel776 pixel777 pixel778
pixel779 \
0
                                                                    0
        0
0
1
        0
                                                         0
                                                                    0
0
2
        0
                                                         0
                                                                    0
0
3
        0
                                   0
                                              0
                                                         0
                                                                    0
0
4
        0
                                                         0
                                                                    0
0
   pixel780
              pixel781
                        pixel782
                                   pixel783
0
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                                           0
1
2
           0
                     0
                                0
                                           0
3
           0
                                           0
                     0
                                0
4
          0
                                           0
[5 rows x 785 columns]
X = df.iloc[:, 1:]
y = df.iloc[:,0]
sns.heatmap(X.iloc[5].values.reshape(28,28))
<AxesSubplot:>
```



```
from sklearn.ensemble import RandomForestClassifier
rf = RandomForestClassifier()
rf.fit(X,y)
RandomForestClassifier()
rf.feature importances
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       5.10355451e-07, 2.10713701e-06, 9.38360597e-07, 1.04976823e-06,
       0.0000000e+00, 0.0000000e+00, 0.0000000e+00,
0.00000000e+001)
rf.feature importances .shape
(784,)
sns.heatmap(rf.feature importances .reshape(28,28))
<AxesSubplot:>
```

