Lesson 11 (notMNIST Dataset) The file `notMNIST.train_100.npz` contains grey scale images of letters.

(a) How many images are in the data set? What is the resolution of the images in pixels?

(c) Select a random image and display the image using the commands below.

(d) Print the label name corresponding to the image above. You may find the commands below useful.

(b) Is the data set "balanced?" That is, are the different classes of letters well represented in the data set? (See commands below.)

(e) Choose an image that you think would be easy to classify. Show the image in your notebook.

(f) Choose an image that you think would be hard to classify. Show the image in your notebook.

(g) How many different "representations" of the letter `H` can you find in the data set? Show the images in your notebook.

```
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
%matplotlib inline

notMNIST = np.load('../../Data/notMNIST/notMNIST_train_100.npz')
notMNIST.keys()

plt.imshow(your_image,cmap='Greys_r')
plt.show()

label_names = np.array(['A','B','C','D','E','F','G','H','I','J'])
pd.Series(label_names[labels]).value_counts()
```