Homework 2 (50 points)

Notes:

- Put information about yourself in the second line of each file like this: First name_Last name
- Comment your codes thoroughly.
- Upload files to Canvas (see below).

Problem: Write a neural network (NN) model to perform one epoch forward propagation. The following are required:

- Use python to program your solution.
- Use matrix based equations only.
- Your code should print the output of the final layer to the screen (31 numbers).

NN Architecture:

a. First input layer: 7 nodes + bias.
b. Second layer: 5 nodes + bias.
c. Third layer: 2 nodes + bias.
d. Output layer: 1 node.
e. All weights to be set to random numbers greater than 0 and less than 1.
f. Use logistic function for each node activation.

Data: 5 features + bias. There should be 31 examples/samples for each feature, all set to a value 3.

Uploads:

1. Code file named HW_2.py
2. Screenshot of code run and output. Call your program using:

```
python HW_2.py
```

This should print output of last layer to the console.
Take screenshot of console upload to canvas.