ECE 4332 / ECE 5332
Spring 2018

Project 5

Use your implementation of the feed-forward neural network to
   a. Solve the XOR classification problem with 2 ReLU hidden units. **Plot the resulting decision surface together with the input data.**
   b. Solve the regression problem described below.
        i. Dataset:

```
rng(100)
X=2*rand(1,50)-1;
T=sin(2*pi*X)+0.3*randn(1,50);
```

        ii. Network architecture: 3 hyperbolic tangent hidden units
        iii. Repeat with 20 hyperbolic tangent hidden units
   Plot the resulting model together with the input data and report the training error on the figure.

When executed, your code must display all required plots and data at once.

Upload your m-file to Blackboard before midnight on April 22.