```
function p = predict1(Theta1, Theta2, X)

m = size(X, 1);
num_labels = size(Theta2, 1);


p = zeros(size(X, 1), 1);

h1 = sigmoid([ones(m, 1) X] * Theta1');
h2 = sigmoid([ones(m, 1) h1] * Theta2');
[dummy, p] = max(h2, [], 2);



end
```