dropout.

Let's look at an example of how to use `tf.nn.dropout()`.

```
keep_prob = tf.placeholder(tf.float32) # probability to keep units

hidden_layer = tf.add(tf.matmul(features, weights[0]), biases[0])
hidden_layer = tf.nn.relu(hidden_layer)
hidden_layer = tf.nn.dropout(hidden_layer, keep_prob)

logits = tf.add(tf.matmul(hidden_layer, weights[1]), biases[1])
```

The code above illustrates how to apply dropout to a neural network.

The `tf.nn.dropout()` function takes in two parameters:

1. `hidden_layer`: the tensor to which you would like to apply dropout
2. `keep_prob`: the probability of keeping (i.e. *not* dropping) any given unit

`keep_prob` allows you to adjust the number of units to drop. In order to compensate for dropped units, `tf.nn.dropout()` multiplies all units that are kept (i.e. *not* dropped) by `1/keep_prob`.

During training, a good starting value for `keep_prob` is `0.5`.

During testing, use a `keep_prob` value of `1.0` to keep all units and maximize the power of the model.

Quiz 1

Take a look at the code snippet below. Do you see what's wrong?

There's nothing wrong with the syntax, however the test accuracy is extremely low.