So now we're going to look at our next big O notation which is O of n squared.

So we're going to start this off with the code that we used in the last video where we had a for loop

followed by another for loop.

But I'm going to change this.

And we're going to remove the console logs.

And we're going to nest one for loop inside of the other.

Then our console log is going to be for I and J inside of the two for loops.

So let's go over to DevTools.

And there's our code.

And we're going to call this with a number ten.

So let's run this.

And if we scroll up to the top, we start with zero zero.

And if we scroll to the bottom we go to.

99.

So we output 100 items.

So let's go back over here.

The number of items that were output in this case is n times n.

Or n squared.

And that's where we get our o of n squared.

So let's take a look at this on a graph.

So if we had two sets of code that accomplish the same task and one was O of n squared and the other

is O of n, the O of n code is better because it's going to complete the task in fewer operations.

So this is our first opportunity to see how it is that we could compare one code set against another.

And O of n squared is generally considered an efficient code.

If you can write your code in a way that is going to become O of N, it is going to be much more efficient.

So that.

Is O of n squared.