Part 1.2-3

We will be using the same technique as before with excercise 1.2-2, in order to visually determine the number, who is going to be interger.

In this case, we need to figure out when $100 * n^2 > 2^n$.

By plotting it in Matlab, we have the Figure 1:

The Matlab code we used is the following:

```
x = linspace(0, 20);
y1 = 100*x.^2;
y2 = 2.^x;
figure();
plot(x,y1,x,y2);
legend('100*n^2', '2^n');
```

As we see the period that $100n^2$ is slower than 2^n is until 14 inputs. After that (15 inputs onward) 2^n becomes considerably slower than $100 * n^2$.

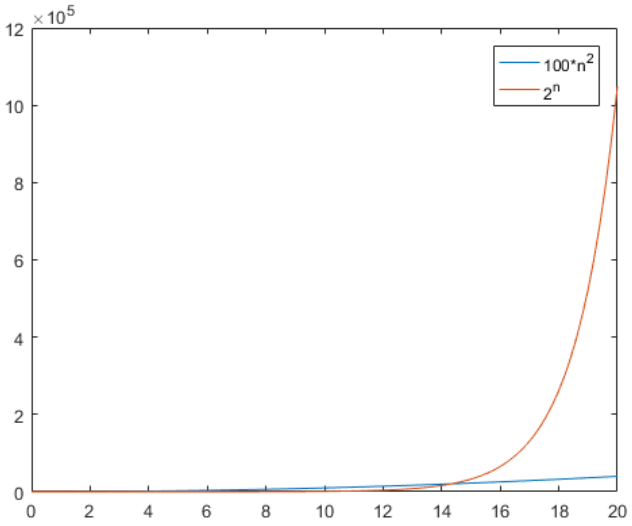

Figure 1: Our plot