

1. How many times will these run?

What are the differences?

```
// 1.A //////////////////////////////////////
int k = 10;
while (k < 100) {
    // do some stuff
    k = k + 10;
}
```

```
// 1.B //////////////////////////////////////
k = 100;
while (k > 10) {
    // do some stuff
    k = k - 10;
}
```

```
// 1.C //////////////////////////////////////
k = 10;
while (k < 100) {
    // do some stuff
    k = k * 2;
}
```

```
// 1.D //////////////////////////////////////
k = 100;
while (k > 10) {
    // do some stuff
    k = k / 3;
}
```

```
// 1.E //////////////////////////////////////
k = 10;
while (k > 100) {
    // do some stuff
    k--;
}
```

```
// 1.F //////////////////////////////////////
k = 100;
while (k > 10) {
    // do some stuff
    k = 99;
}
```

2. How many times will these run?

What are the differences?

```
// 2.A //////////////////////////////////////
double d = 0.0;
d = Math.random();
int h = 0;
while (h < 3) {
    if (d < 0.5) {
        h++;
    }
    else {
        h = 0;
    }
}
```

```
// 2.B //////////////////////////////////////
d = 0.0;
h = 0;
while (h < 3) {
    d = Math.random();
    if (d < 0.5) {
        h++;
    }
    else {
        h = 0;
    }
}
```

3. Suppose that I gave you a method named `getUserNum()` that, when called, allows a user to enter a number on the keyboard and then returns the number. Write code that allows a user to enter 10 numbers and then draws a square with corner point (0, 0) and a size that is the **sum** of the 10 numbers entered.
4. Now write code that allows a user to enter as many numbers as they want (the user will signify the end of the numbers by typing -1) and then draws a square with a size of the sum of all the numbers (excluding -1).