Exercise 5-2

Problem #1: Determine if a number is between 0 and 25, 26 and 50, or greater than 50.

```
int x = 75;

if (x > 50) {
  println(x + " > 50!");
} else if (x > 25) {
  println(x + " > 25!");
} else {
  println(x + " <= 25!");
}
```

OUTPUT:_____

```
int x = 75;

if(x > 25) {
   println(x + " > 25!");
} else if (x > 50) {
   println(x + " > 50!");
} else {
   println(x + " <= 25!");
}
```

OUTPUT:_____

Although the syntax is correct, what is problematic about the code in column two above?

Problem #2: If a number is 5, change it to 6. If a number is 6, change it to 5.

```
int x = 5;

println("x is now: " + x);
if (x == 5) {
  x = 6;
}
if (x == 6) {
  x = 5;
}
println("x is now: " + x);
```

OUTPUT:_____

```
int x = 5;

println("x is now: " + x);
if (x == 5) {
  x = 6;
} else if (x == 6) {
  x = 5;
}

println("x is now: " + x);
```

OUTPUT:_____

Although the syntax is correct, what is problematic about the code in column one above?

1. 75 > 50!
2. 75 > 25!
    a. The problem with the code is, that the second statement will never get run. Because the first statement will always be true if x is above 25, and the full statement will therefore end after executing the first statement and never get to statement two.
3.
    a. x is now: 5
    b. x is now: 5
    c. The result will always be 5.
4.
    a. x is now: 5
    b. x is now: 6