# Tutorial 0

Thought all of the following questions are about Java, it does not require any knowledge of Java because the answers are the same as they would be if the language were C. The only difference is Java can figure out how many items are in an array by the declaration. It knows that a has three items.

```java
int a[] = {1, 2, 3};
int acc = 0;
```

Given the values of the declarations of the values above what are the values of the following expresions.
1. a[0]
2. a[2]
3. acc += a[1]

```java
for (int i = 0; i < 3; i++ ) {
    acc += a[i];
}
```
Given the above statement, what are the values of the following expressions
4. acc
5. acc/3

```java
for (int i = 0; i < 3; i++ ) {
    if (a[i] % 2 == 1) {
        acc += a[i];
    }
}
```
Given the above statement, what are the values of the follow
6. acc
7. acc/2

```java
for (int i = 0; i < 3; i++ ) {
    if (a[i] % 2 == 1) {
        acc += a[i];
    } else {
        acc += a[i];
    }
}
```
Given the above statement, what are the values of the follow
8. acc
9. acc/2
10. Write a C function that will calculate the factorial of its integer parameter.
11. Write a C function that will calculate and return the average of an array of integers.
12. Write two files point.h and point.c that define two integer variables x and y that cannot be used outside of point.c but which can be set by two functions setX and setY. The function setX will set x to the value of its single integer parameter and setY will set y to the value of its parameter. The functions getX and getY will return the values of the variables x and y.