# Computer Programming: Skills and Concepts
# Tutorial 3
# Week 5 — October 18–21, 2010

## Functions

Consider the following code:

```
int i = 3;

int triple( int a ) {
  a = a*3;
  return a;
}

int main(void) {
  triple(i);
  printf("i, triple(i): %d, %d", i, triple(i));
}
```

What gets printed on the screen?

## Pointers

Consider the following code:

```
int a = 10;
int b = 5;
int *p = &a;
int *q = &b;
int c = *p;
c = c + 1;
*p = *p + 2;
int d = *p;
*p = *q;
int e = *p;
b = b + 5;
int f = b;
int g = *p;
int h = *q;
```

What is the value of b, c, d, e, f, g, and h?

## Programming

We would like to have a function that takes ($n = 3$) three numbers $a_i$ and gives us the average $\mu$ and the standard deviation $\sigma^2$

$\mu = \frac{1}{n} \sum_{i=1}^{n} a_i$
$\sigma^2 = \frac{1}{n} \sum_{i=1}^{n} (a_i - \mu)^2$