

```
// Do not forget to declare the variable. Here we say index is an Integer variable
// variables outside setup() and loop() are visible by the whole program
int index;
```

```
void setup()
{
    // setup runs only once at the begining of your program
    // you can put here initialization and preparation code
}
```

```
// Define a new custom function
// The arguments and the return of the function are special
// integers: long can store large numbers
long adder_function(long value1, long value2)
{
    return value1 + value2;
}
```

```
void loop() // Loop is what will be repeated forever in your program
{
    index = 0;    // "=" is assignement | "==" is for equality test
    for (int i=0; i<10; i++) // start at 0, stop before 10, increment by 1
    {
        // set something to purple
    }
```

```
    delay(1000); // 1000 milliseconds = 1sec
```

```
    if (index == 4) {
        // set something to blue
    }
```

```
    delay(2000);
```

```
    if (index > 8) {
        // set something to green
    }
    else {
        // set something to red
    }
```

```
    delay(3000);
```

```
    while (index < 100)
    {
        index++; // this is the short way to write: index = index + 1;
        long r = random(100,200); // r is a new variable that can hold large numbers
        // we also get a second new variable to store the result.
        long result = adder_function(r, -100);
    }
} // end of loop (forever in scratch)
```

define adder\_function value1 value2

set result to value1 + value2

when clicked

forever

set index to 0

repeat 10

set pen color to purple

wait 1 secs

if index = 4 then

set pen color to blue

wait 2 secs

if index > 8 then

set pen color to green

else

set pen color to red

wait 3 secs

repeat until index < 100

change index by 1

set r to pick random 100 to 200

adder\_function r -100