

The primary tool for generating random numbers is the `Math.random()` method.

`Math.random()` returns a double uniformly distributed from the range `[0, 1)`.

We can use this method directly to make certain events happen with a given probability. For example, if we want to use the color red 30% of the time and blue the other 70%:

```
if(Math.random() < .3){
    g2.setColor(Color.RED);
}else{
    g2.setColor(Color.BLUE);
}
```

Often, we need random integers. This can be achieved by manipulating `Math.random()` with multiplication, addition and casting to an int.

A few examples:

```
int a = (int)(Math.random()*2);           //int 0 or 1.
int b = (int)(Math.random()*10);          //ints from 0 through 9.
int c = (int)(Math.random()*200 + 100);    //ints from 100 through 299.
```

Note that when multiplying `Math.random()*10`, 10 itself is not a possible output. This product yields doubles from `[0, 10)`, and when cast to an int, we get 10 ints starting at 0, ending with 9.

Sample usage:

```
//Set a random color!

int red = (int)(Math.random()*256);      //max output is 255
int green = (int)(Math.random()*256);
int blue = (int)(Math.random()*256);
Color randColor = new Color(red, green, blue);
g2.setColor(randColor);
```