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);