

Review of Concepts

How strong are your skills?



Coordinates

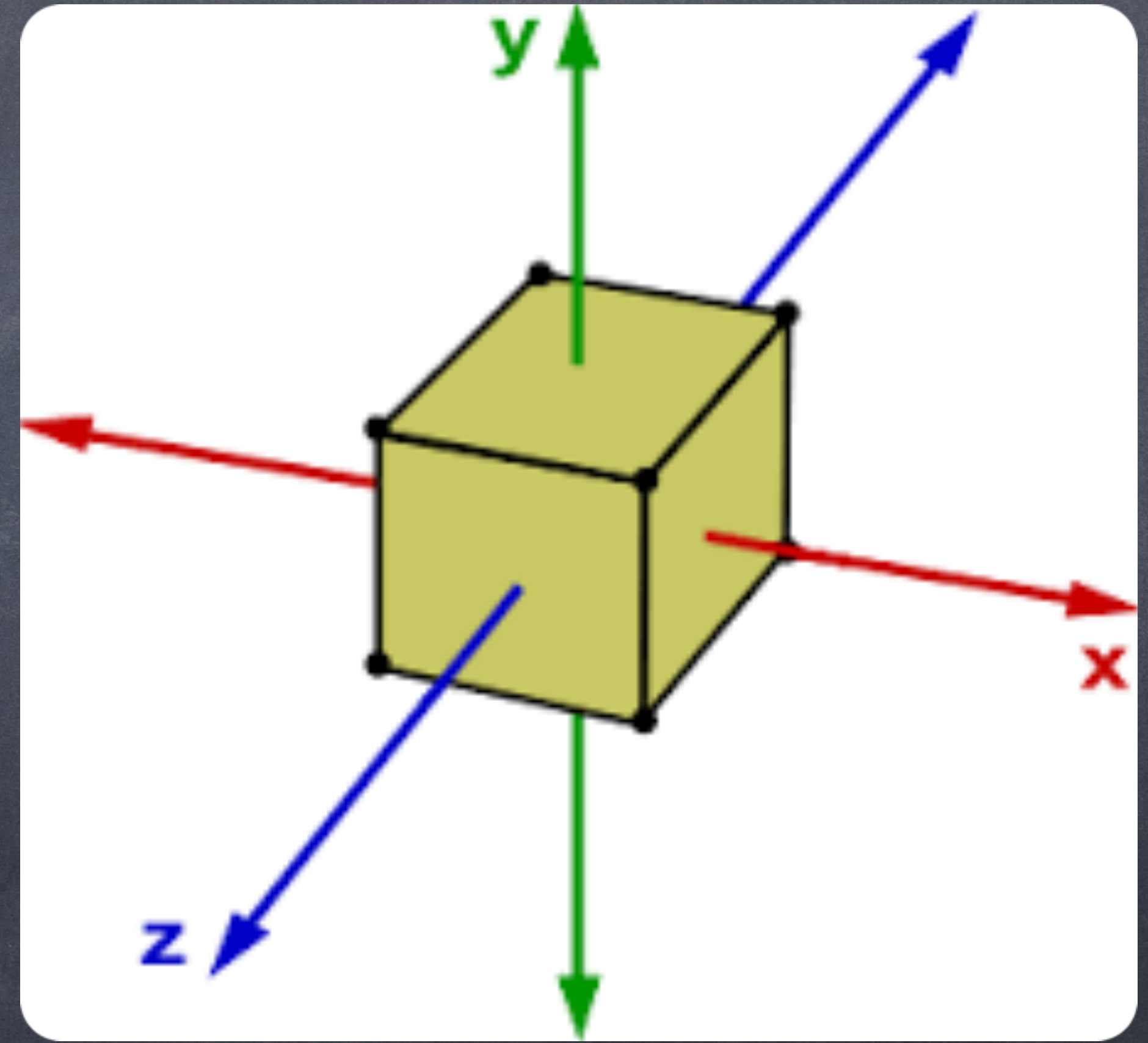
Anyone remember what they are?



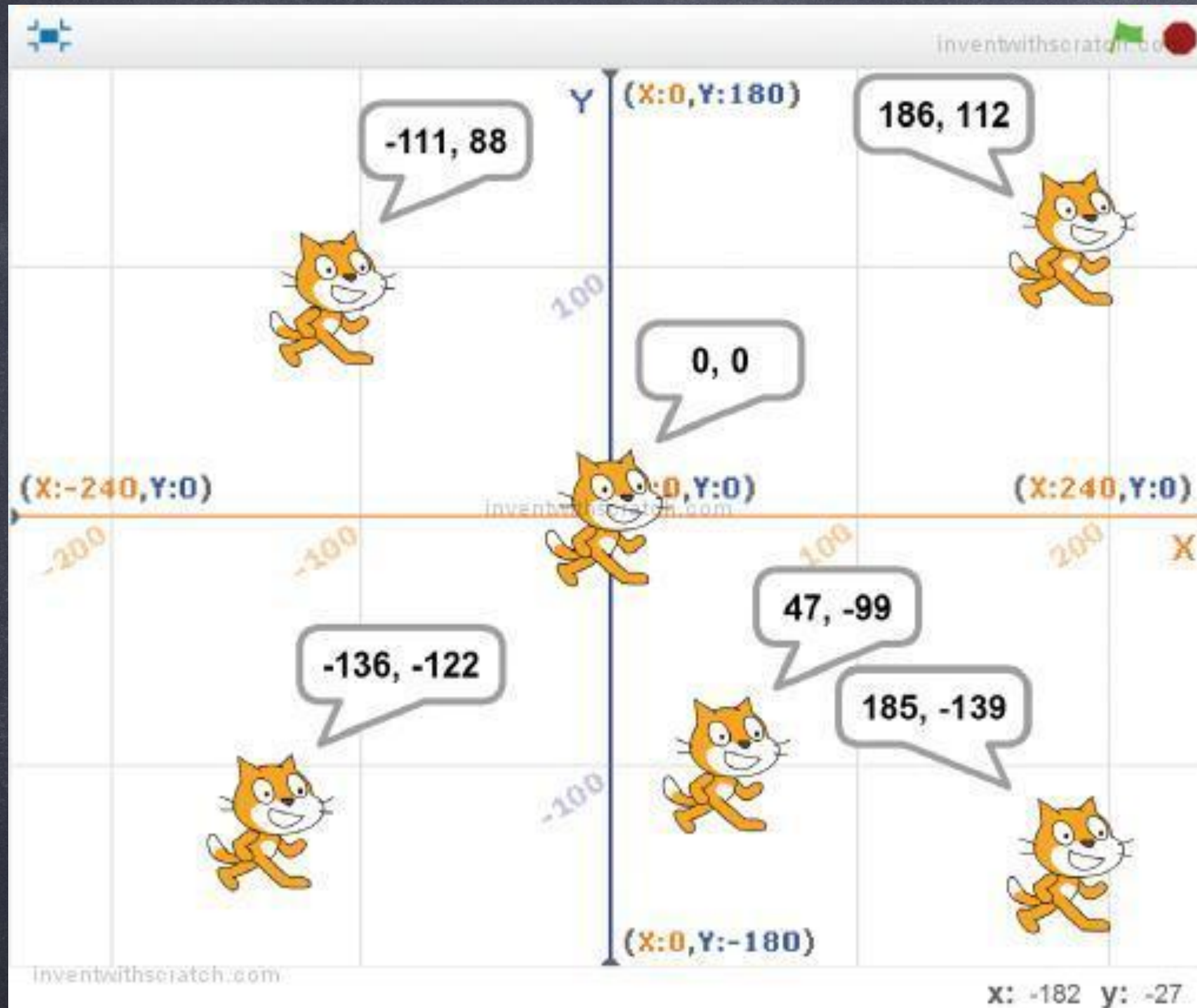
Three Axis Coordinates



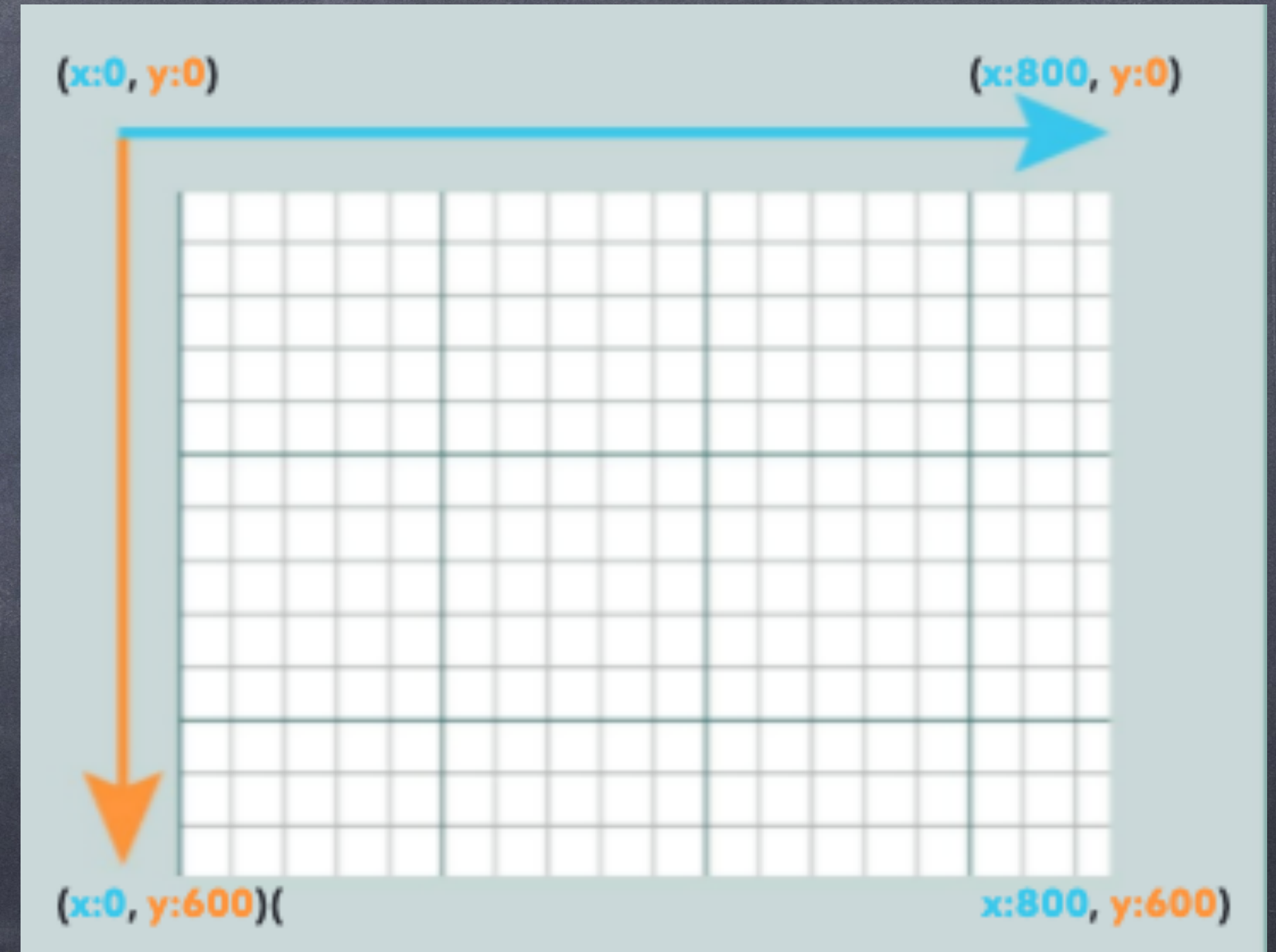
Ordered Triple: (x , y , z)



Scratch Coordinates



GDP Coordinates

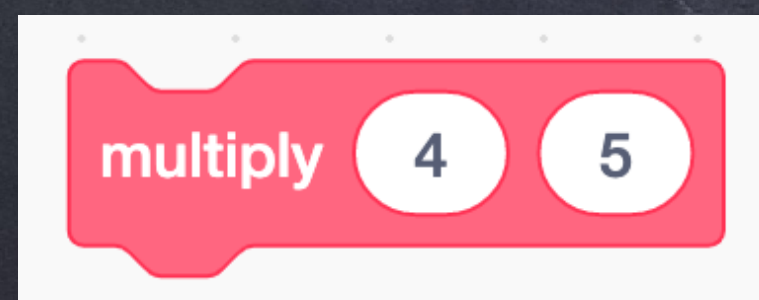
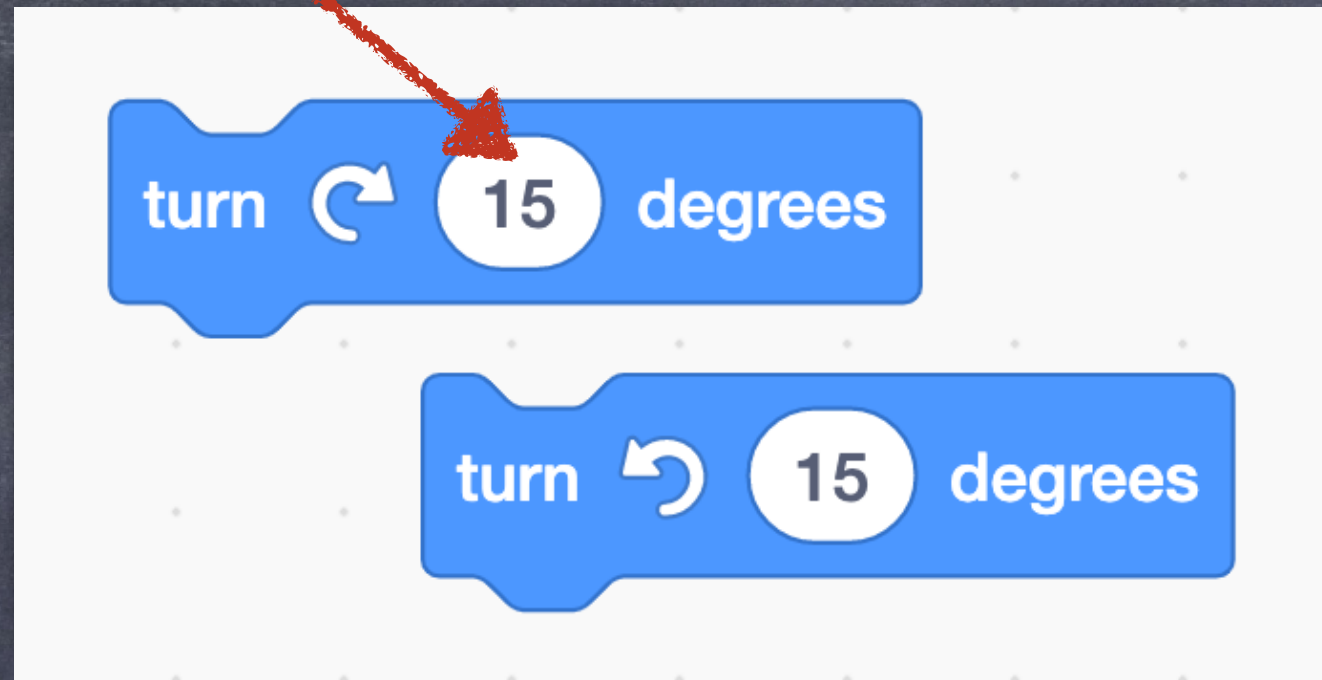


Functions

Anyone remember what they are?



Functions



```
spin(yellowStar, 100);  
spin(orangeStar, 100);  
spin(greenStar, 100);
```

```
function multiply(p1, p2) {  
  return p1 * p2;  
}
```



```
multiply(4, 5);
```


Variables

my variable



A symbol used to represent a quantity that can change. You can think of these as containers. The container for a variable depends on its data type.

```
1 var rightArrowPressed = isKeyPressed(Keys.rightArrow);
2 if(rightArrowPressed && $this.x() < 700){
3     moveX($this);
4     if($this.scaleX() < 0){
5         $this.scaleX(-$this.scaleX());
6     }
7     var sp = $this.findName("turtleSprite");
8     sp.incrementAnimation();
9 }
10 var leftArrowPressed = isKeyPressed(Keys.leftArrow);
11 if(leftArrowPressed && $this.x() > 100){
12     moveX($this, -$this.speedX());
13     if($this.scaleX() > 0){
14         $this.scaleX(-$this.scaleX());
15     }
16     var sp = $this.findName("turtleSprite");
17     sp.incrementAnimation();
18 }
```


Variable Types

 Boolean

 String

 Number

TRUE

FALSE

“Hello! My Name is Cat!”

24



Loops

Anyone remember what they are?

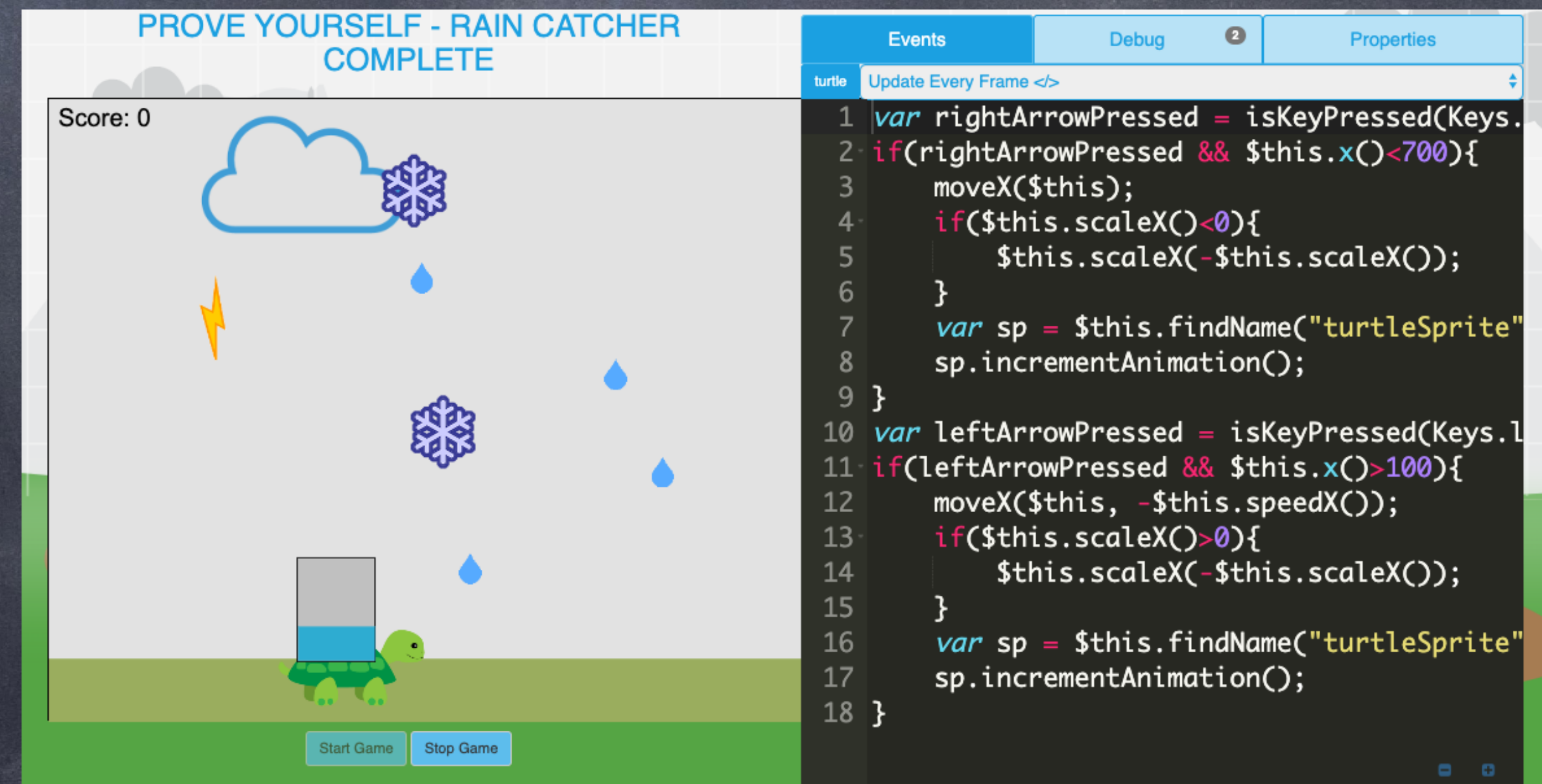
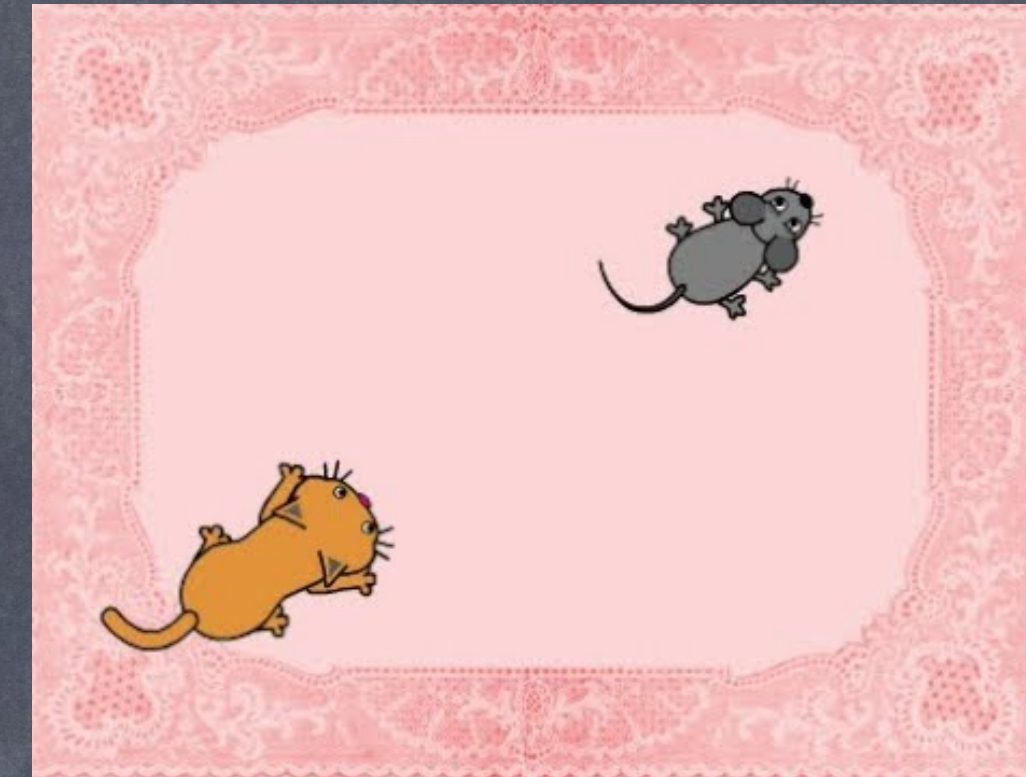


Forever Loop / While Loop

💡 Repeats Code Unlimited Times

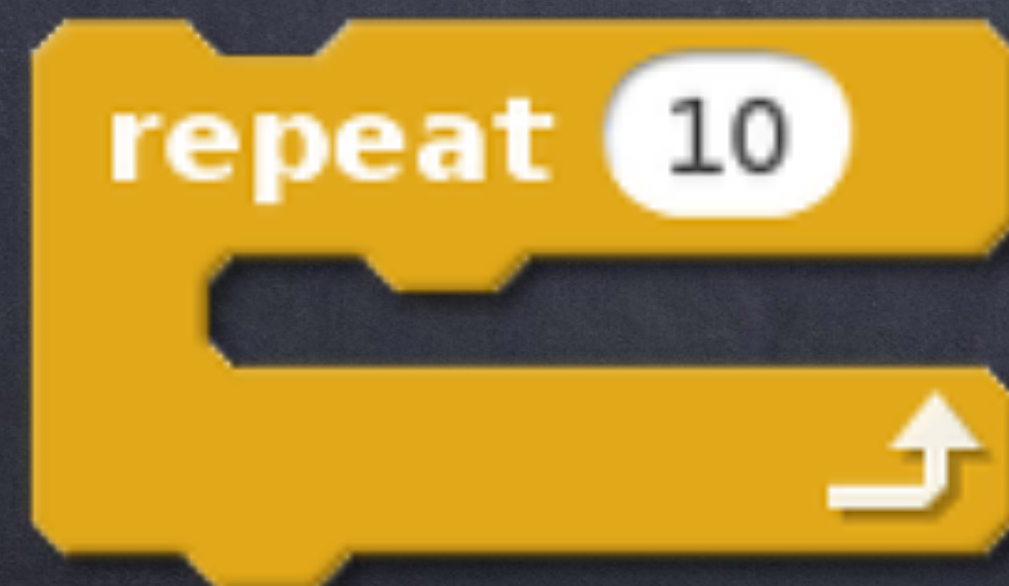
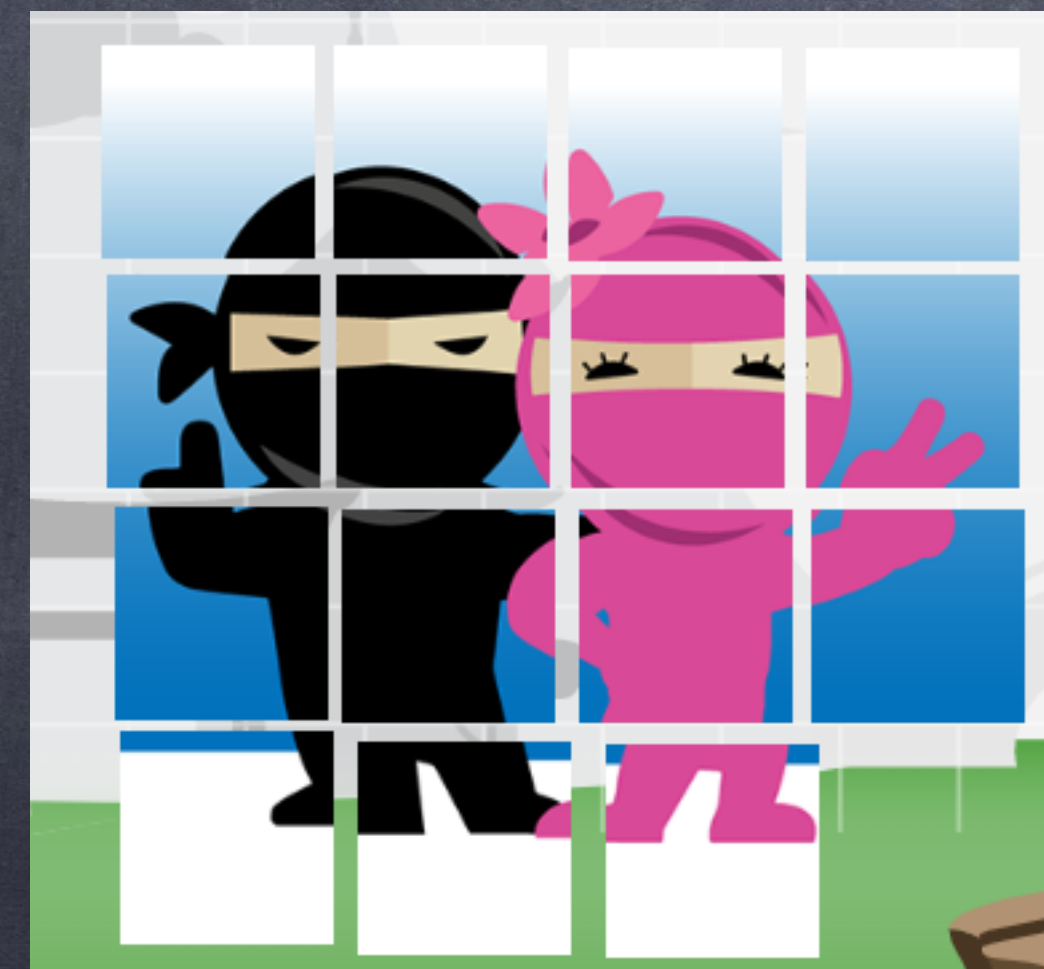
💡 Good for Player Controls

💡 Animations or Enemies



Repeat / For Loop

- 💡 Complete Actions Specific Amount of Times
- 💡 Good for Setup Events
- 💡 Create Patterns



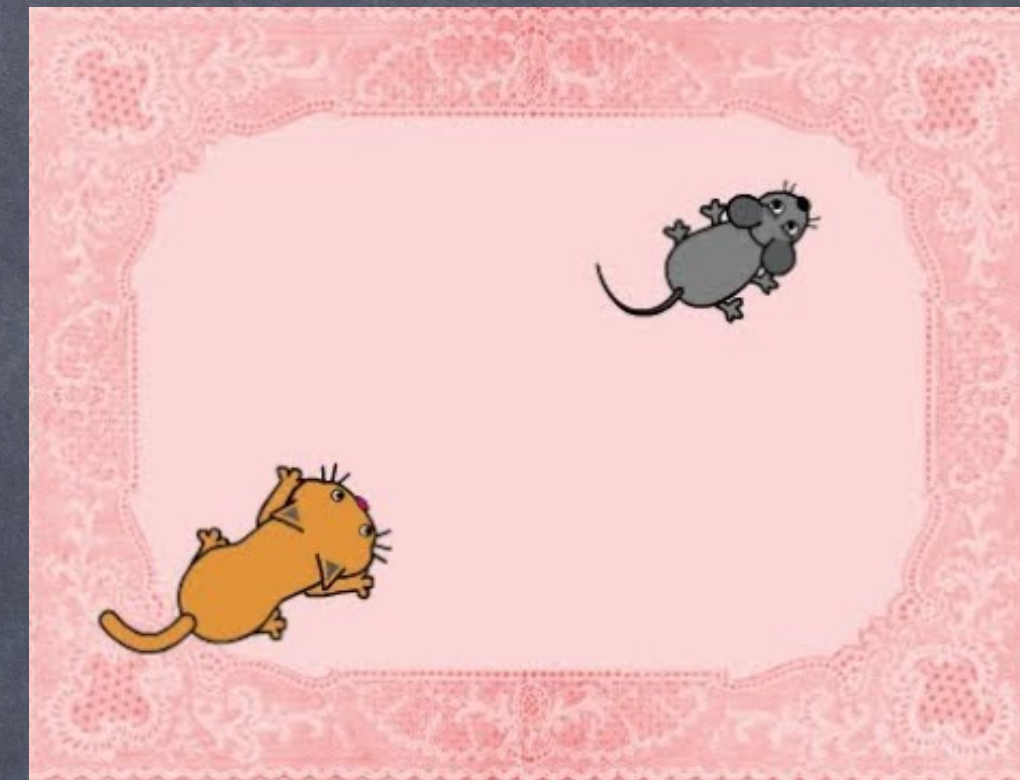
Repeat Until / Do While

💡 Good for Interaction in a Game

💡 Trigger Events in a Game

💡 Setting a Maximum

💡 Creating "Game Over"



PROVE YOURSELF - RAIN CATCHER
COMPLETE

Score: 0



Start Game Stop Game

Events Debug 2 Properties

```
turtle Update Every Frame <>
1 var rightArrowPressed = isKeyPressed(Keys.
2 if(rightArrowPressed && $this.x()<700){
3   moveX($this);
4   if($this.scaleX()<0){
5     $this.scaleX(-$this.scaleX());
6   }
7   var sp = $this.findName("turtleSprite")
8   sp.incrementAnimation();
9 }
10 var leftArrowPressed = isKeyPressed(Keys.
11 if(leftArrowPressed && $this.x()>100){
12   moveX($this, -$this.speedX());
13   if($this.scaleX()>0){
14     $this.scaleX(-$this.scaleX());
15   }
16   var sp = $this.findName("turtleSprite")
17   sp.incrementAnimation();
18 }
```


Questions?

Interactive Time: Can you apply these concepts?

