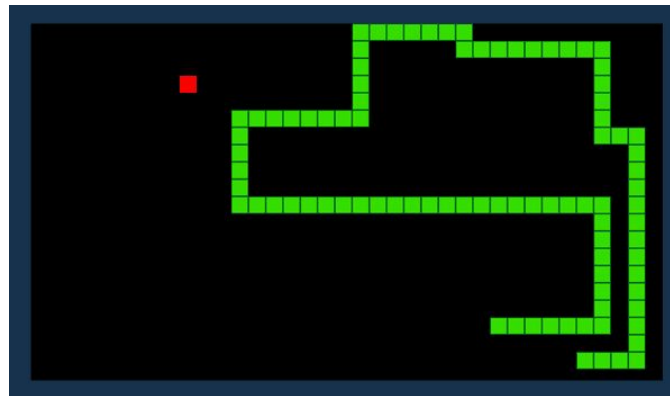
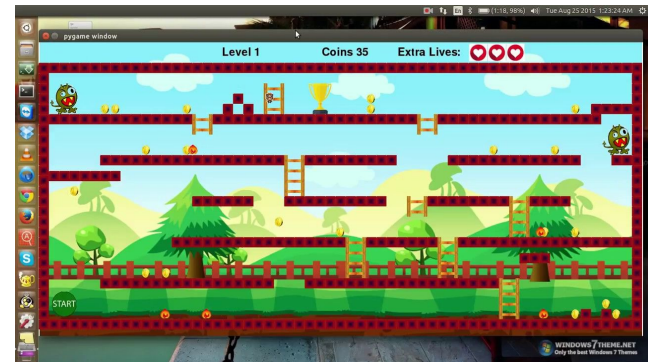
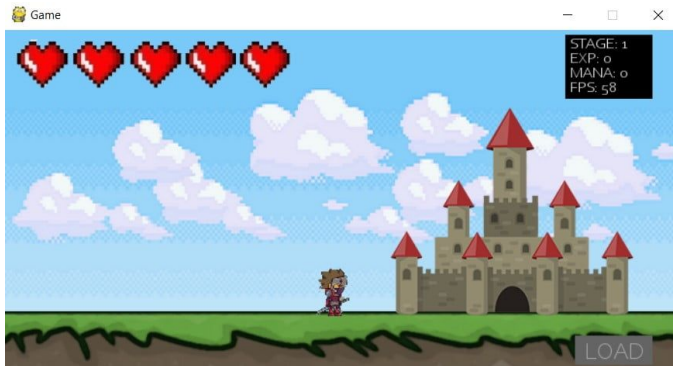


# Intro to Pygame



# What is Pygame?

Pygame is a tool we can use to make cool games using Python like these:



# How do we use it?

First we need to tell Python that we want to use Pygame, and tell it to start the game

```
from pygame import *  
init()
```


This line tells  
Python that we  
want to use pygame

This line starts  
Pygame

# Make a scene!

We can make a screen to show our game

```
screen = display.set_mode(500, 400)
```




This line makes a screen  
that is 500 pixels wide and  
400 pixels high

# Make a scene!

Once we have a screen we can put images on it!

```
cat_image = image.load("cat.png")  
screen.blit(cat_image, (30, 40))  
display.update()
```



This line loads an image into our game so we can use it

# Make a scene!

Once we have a screen we can put images on it!

```
cat_image = image.load("cat.png")  
screen.blit(cat_image, (30, 40))  
display.update()
```

This line puts the  
image on the  
screen at the  
coordinates 30, 40

This line loads an  
image into our  
game so we can  
use it

# Make a scene!

Once we have a screen we can put images on it!

```
cat_image = image.load("cat.png")  
screen.blit(cat_image, (30, 40))  
display.update()
```

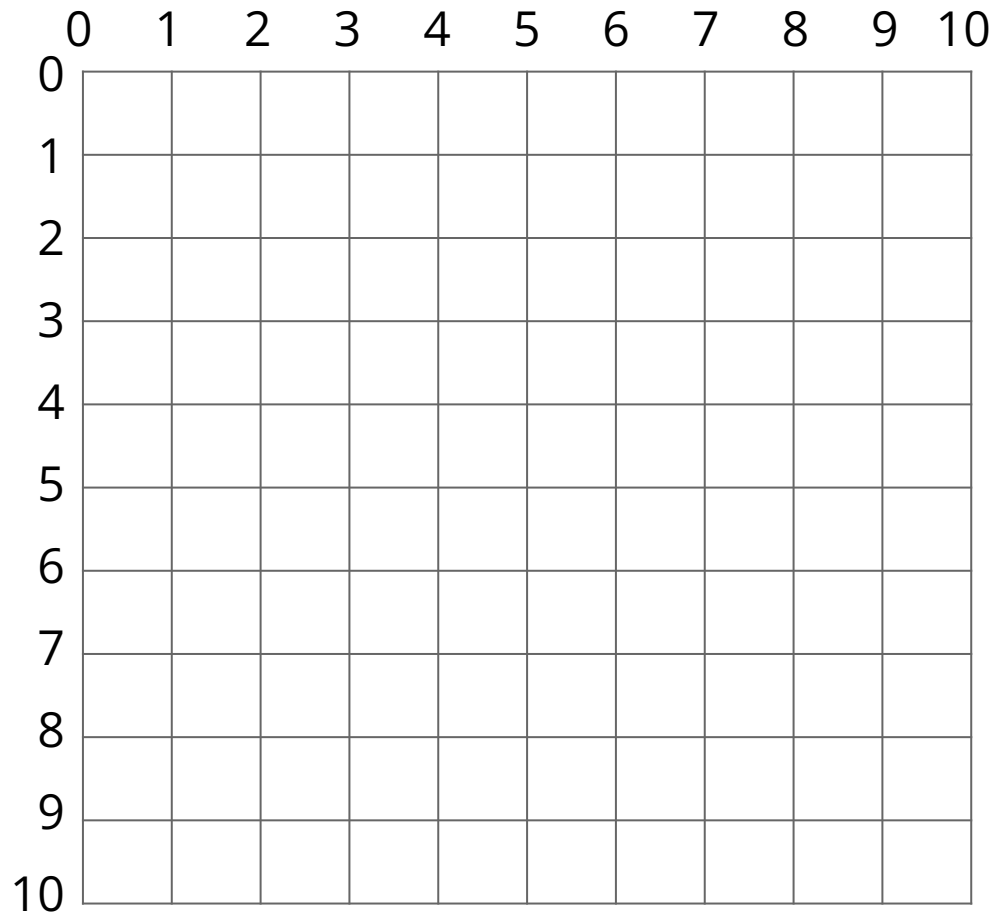
This line tells Pygame to update our display, which will show our new image

This line puts the image on the screen at the coordinates 30, 40

This line loads an image into our game so we can use it

# Pygame Coordinates

Coordinates  
in Pygame  
are a little  
strange...



Because they  
start at the top  
left instead of  
the bottom left



# Pygame Coordinates

When you have an image in pygame like this:



# Pygame Coordinates

When you have an image in pygame like this:

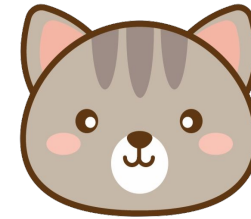


Pygame thinks of it like a rectangle like this:



# Pygame Coordinates

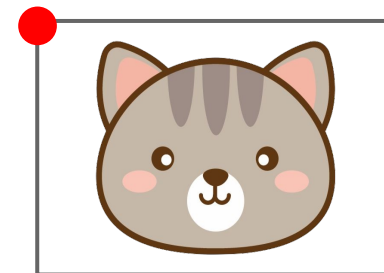
When you have an image in pygame like this:



Pygame thinks of it like a rectangle like this:

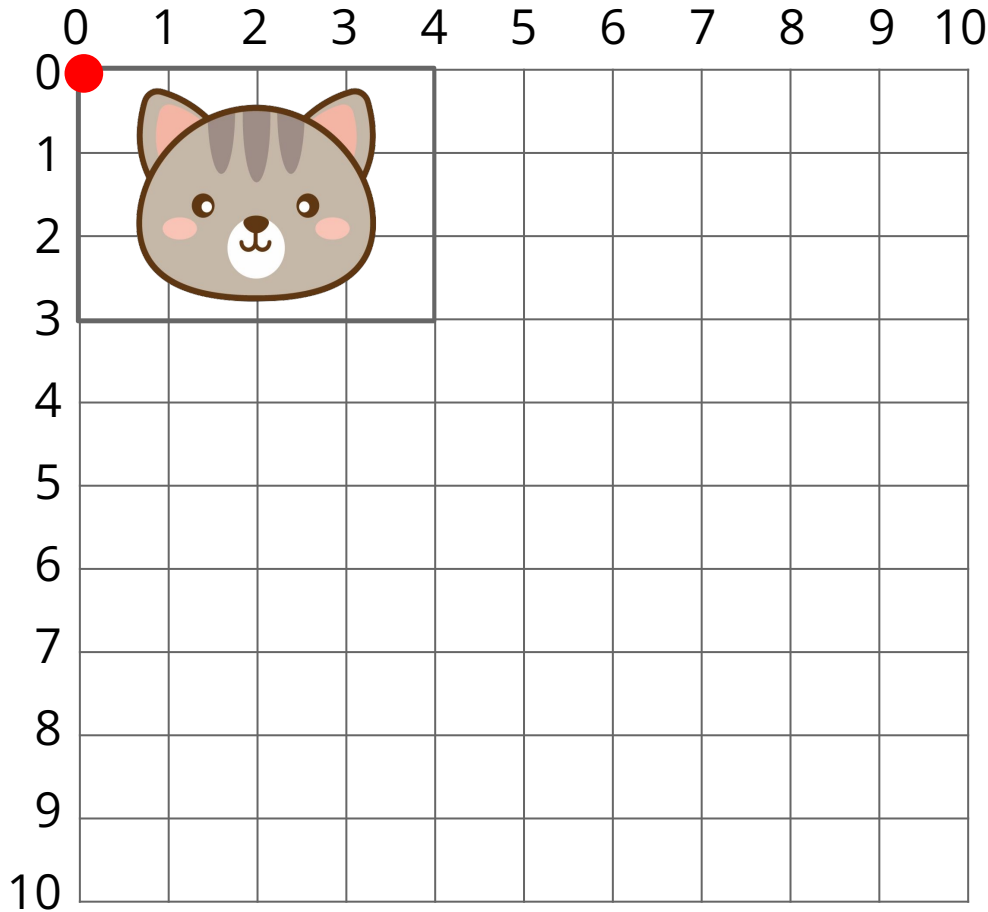


And the coordinates for the image are the top left corner like this:



# Pygame Coordinates

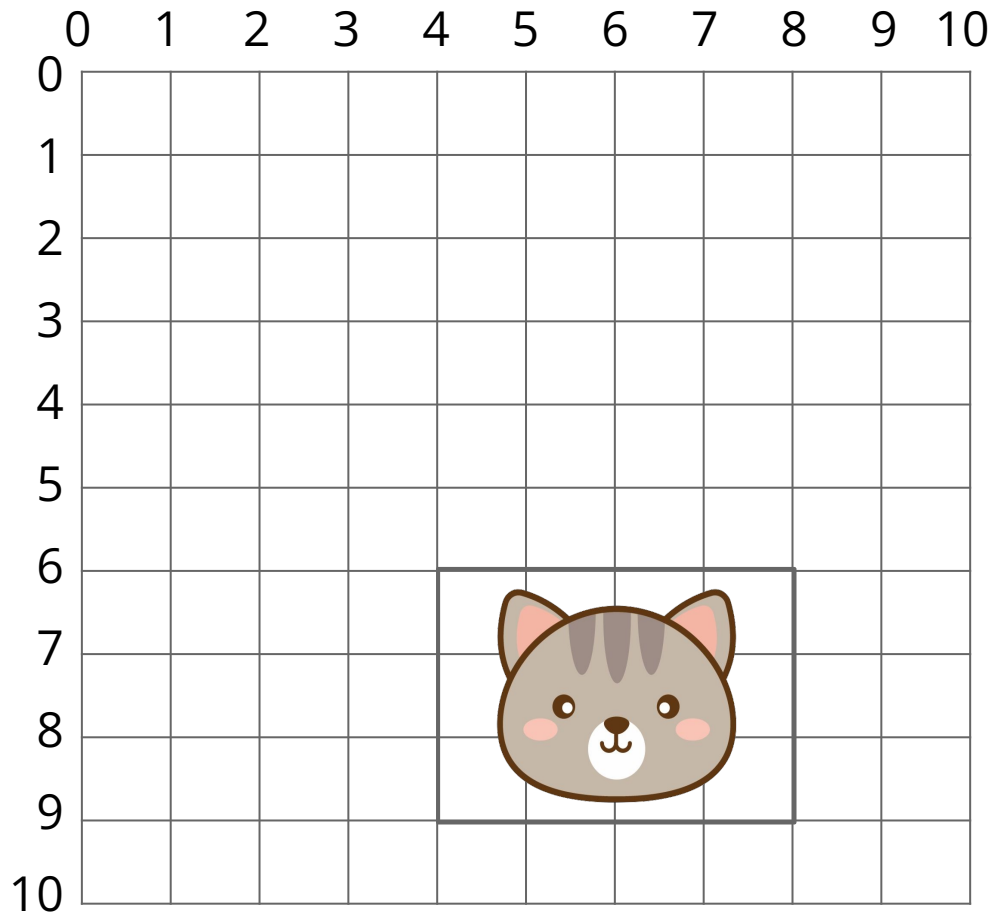
So to if we wanted our cat image to be on the top left we would use the coordinates (0, 0)



That means that the top left corner of the image will be in the top left corner of the screen

# Pygame Coordinates

What are the coordinates of our image now?

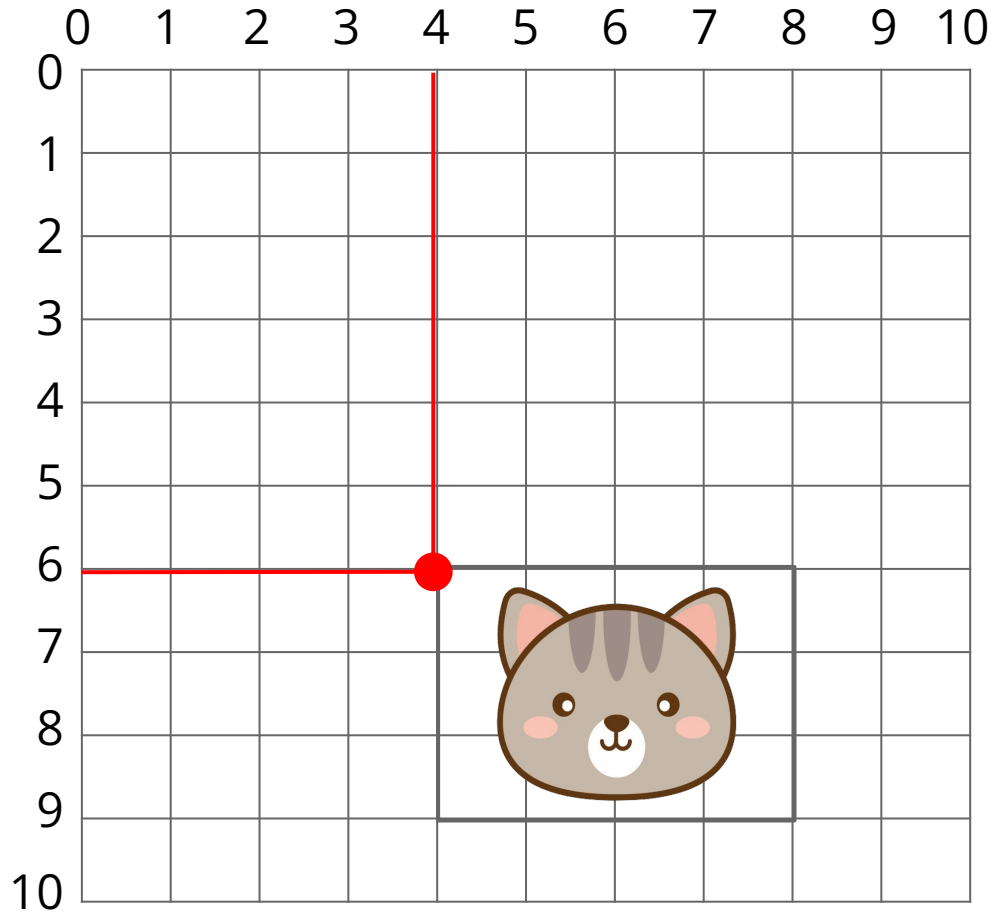


Remember that when we write coordinates we say the x (horizontal) number first and the y (vertical) number second

# Pygame Coordinates

What are the coordinates of our image now?

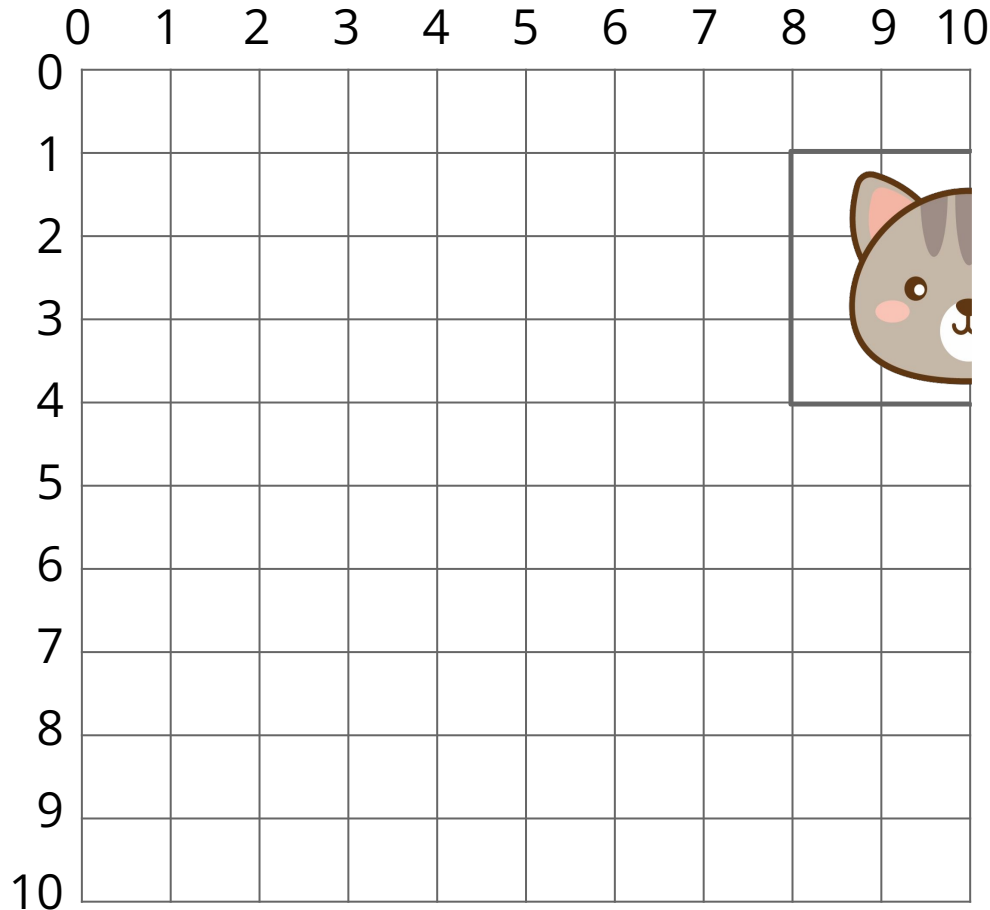
They are:  
(4, 6)



Remember that when we write coordinates we say the x (horizontal) number first and the y (vertical) number second

# Pygame Coordinates

What are the coordinates of our image now?

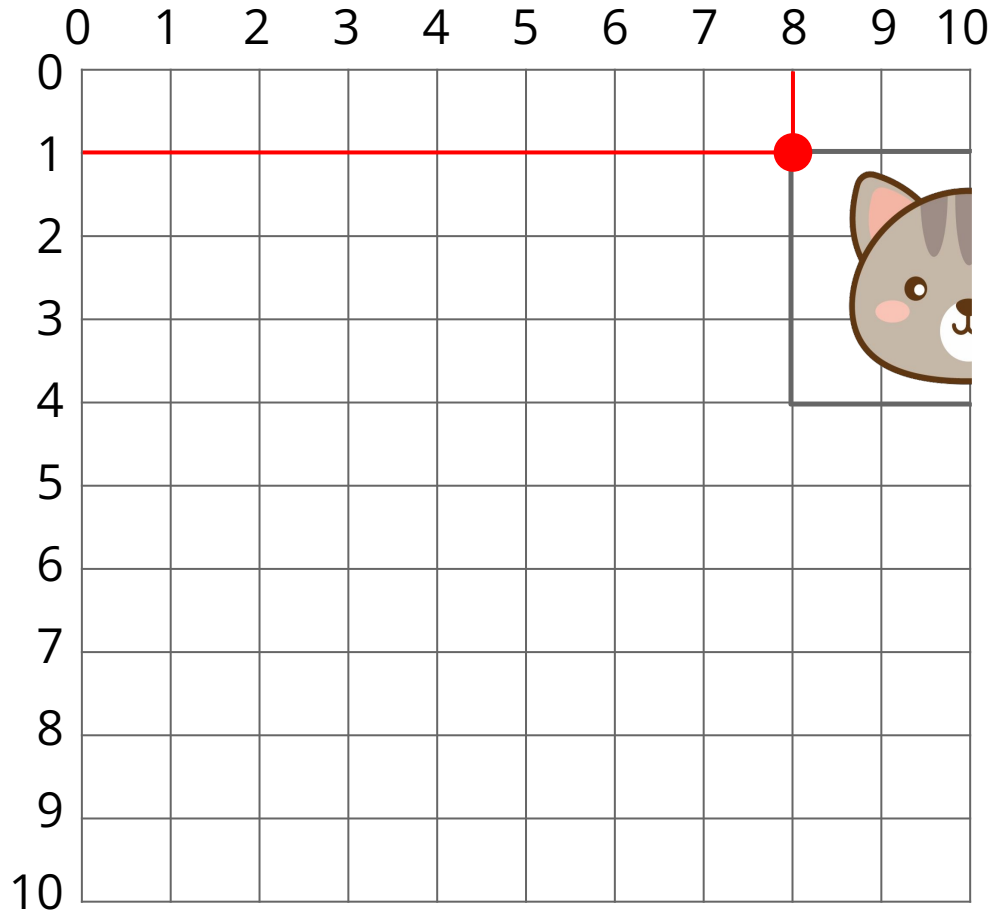


Sometimes we can put the image off the screen by giving coordinates that are far to the bottom or the right

# Pygame Coordinates

What are the coordinates of our image now?

They are:  
(8, 1)



Sometimes we can put the image off the screen by giving coordinates that are far to the bottom or the right



# Project time!

Now that you've **updated** your knowledge...

**Try to do the next Part!**

The tutors will be around to help!