VBugs Worksheet 1

Name: _____

Year Level: **SOLUTIONS!!!**

Part 1

Question 1

What is happening on your SwinGame screen? Describe the output below:

_____

_____

_____

Part 2

Question 1:

a. What purpose do comments serve in code?

_____

_____

_____

_____

b. What symbol do you use to make something a comment?

_____

c. Why do you think we might use NS diagrams to represent code?

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d. What would happen to the loop the "Do Until" condition was never met?

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Exercise1: *Reading the code*

a) Which line contains the code that tells the computer to draw text on the screen?

b) Which line does contain the code that tell a computer to draw a rectangle on the screen?

c) Where (line number) does the game loop start and end?

Exercise 2: *Changing the text*

a) Change the text "Hello World!" to "Hello *Your Name*!"
Write the code below that you changed to make this happen:

Answer:

```
...
'Draws text "Hello World"
```

_____

_____

```
'Refreshes the Screen and Processes Input Events
...
```

Exercise 3: *Changing the color*

a) Change the color of the text to `Color.GreenYellow`.
Write the code below that you changed to make this happen:

Answer:

```
...
'Draws text "Hello World"

_____________________________________________________________________

_____________________________________________________________________

'Refreshes the Screen and Processes Input Events
...
```

b) Change the color of the rectangle to `Color.Blue`.
Write the code below that you changed to make this happen:

Answer:

```
...
'Draws red rectangle

_____________________________________________________________________

'Draws text "Hello World"
```

c) Change the background color to `Color.LightBlue`.
Write the code below that you changed to make this happen:

Answer:

```
...
'Clears the Screen to Black

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'Draws red rectangle
...
```
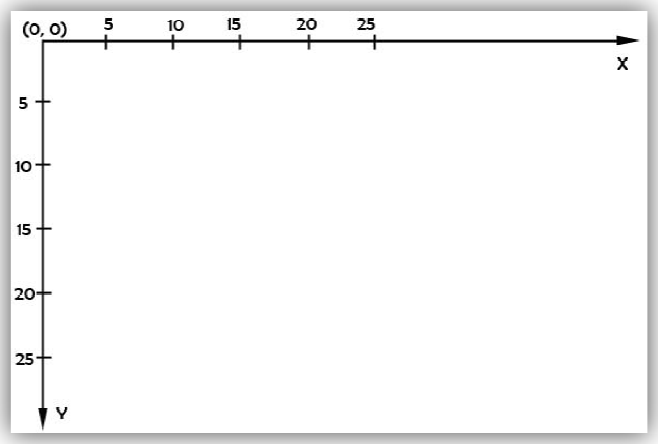

Part 3

Exercise 1: *Locations on the screen*

a) In the area below draw a small rectangle with coordinates X = 15 and Y = 5 by hand.



b) In the area below draw the text "Hello Your Name" at X = 5, Y = 20.

Exercise 2: *Changing drawing locations*

a) Change the location of the text; put it in the middle of the screen.
Write the code below that you changed to make this happen:

Answer:

```
'Draws text "Hello World"

_____________________________________________________________

_____________________________________________________________

'Refreshes the Screen and Processes Input Events
   …
```

b) Change the location of the rectangle; put it under the text.
Write the code below that you changed to make this happen:

Answer:

```
'Draws red rectangle

_____________________________________________________________

'Draws text "Hello World"
```

Exercise 3: *Size of an element*

a) In the area below draw a rectangle with width = 5, height = 10 at the position X = 0, Y = 5.

b) In the area below draw a rectangle with width = 10, height = 5 at the position X = 5, Y = 10.

Exercise 4: *Draw an element with the new size.*

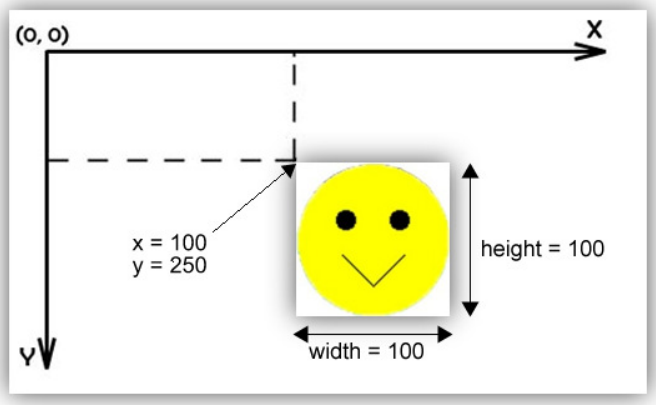
a) Change the size of the rectangle to width = 630 and height = 20.
Write the code below that you changed to make this happen:

Answer:

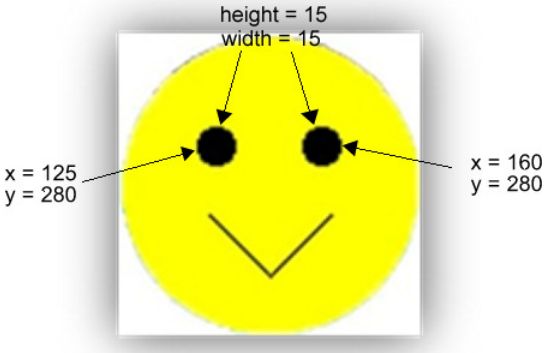
```
...

'Draws red rectangle


_____________________________________________________________


'Draws text "Hello World"
```

Exercise 5: Draw a smiley face

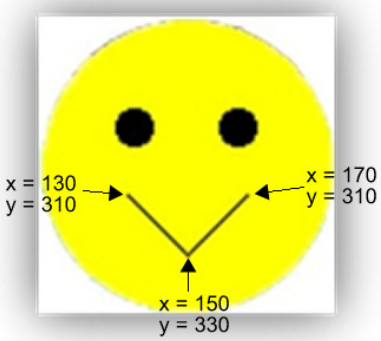
1) Draw a yellow circle on the screen – "face". Use:
`Graphics.FillEllipseOnScreen(Color, Xpos, Ypos, Width, Heigh)` and the following dimensions:



2) Draw the eyes – two black circles inside the yellow circle. Use the same sub call to draw, i.e.:



3) Draw the "smile" on the screen.
Tell the computer to draw two lines which are connected at the bottom, inside the yellow circle. To do so, use:
`Graphics.DrawLineOnScreen(Color, XPosStart, YPosStart, XPosEnd, YPosEnd)`
i.e.:



Put the code you entered to draw the smiley face this below:

```
'Draw yellow circle on the screen - “face”.

_____________________________________________________________

'Draw eyes - two black circles inside the yellow circle

_____________________________________________________________

_____________________________________________________________

'Draw “smile” on the screen.

 _____________________________________________________________

_____________________________________________________________
```