Creating a Basic Pong Game:

1. Open Scratch

2. Delete the Cat.  (Click the scissors and then click on the Cat.)

3. Create a Paddle Sprite and Label it as “Paddle”
   a. Click “Paint new sprite” icon
   b. Draw a rectangle with the rectangle tool
   c. Click “OK”
   d. Name the Sprite “Paddle”

4. Create a Ball Sprite
   a. Click “Choose new sprite from file” icon
   b. Double click on “Things” folder
   c. Select one of the ball icons.
   d. Click Ok
   e. Name the Sprite “Ball”

5. Create the Scripts for the Ball Sprite:
   a. Drag a “When Green Flag Clicked” into the scripts field
   b. Drag a blue “point in direction” and connect it the Green Flag Script
   c. Put a green “pick random 0 to 360” inside the “point in direction” script.
   d. Drag a yellow “forever” and connect it to the above scripts.
   e. Put blue “move 5 steps” inside the “forever”
   f. Put blue “if on edge, bounce” inside the “forever.”
g. Drag another “When Green Flag Clicked” into the scripts pane.

```
when [flag] clicked
point in direction pick random 0 to 360
forever
  move 5 steps
  if on edge, bounce
```

e. Drag a yellow “forever if” into the scripts pane.

f. Put a light blue “touching” in the “forever if” and select “paddle”

```
forever if touching paddle ?
  turn [15] degrees
```

g. Put a blue “turn [15] degrees” in the “forever if.”

```
forever if touching paddle ?
  turn [15] degrees
```

h. Change the “15” to “180” so it reads:

```
forever if touching paddle ?
  turn [180] degrees
  move 5 steps
```

i. Put a blue “move 5 steps” in the “forever if.”

Your Script should look mostly like this:

```
when [flag] clicked
point in direction pick random 0 to 360
forever
  move 5 steps
  if on edge, bounce
when [flag] clicked
  forever if touching paddle ?
    turn [180] degrees
    move 5 steps
```
6. Create the paddle Scripts to look like this: This allows the paddle to follow the mouse.

![Paddle Scripts](image)

7. Click the green flag. Your game should work!

8. Now pick at least 2 of the following game enhancements (adding more than 2 will give you extra credit):
   
   a. Add sound effects to the ball and/or paddle.
   b. Create multiple levels
   c. Create a point system
   d. Have the player lose if the paddle misses the ball
   e. Add another ball
   f. Change the speed according to level