# Scratch Problems to Solve

## Project I. Moving, Drawing, Flag Button to Start

Open a new project. Save it, calling it **colorboxes.**

### Using **move, turn, pen down, pen up, clear**

1. Draw a box.
2. Draw an X.
3. Draw your initials.

### Adding **forever, repeat**

1. Have the cat draw your box over and over and over without stopping.
2. Draw your box using just one **move** and one **turn** bar.

### Adding Pen commands

1. Change the color of the pen each time the box is drawn.
2. Change the size of the pen each time the box is drawn.
3. Reset the pen size to what you started with.
4. Have your box line grow for ten turns around the square, then shrink for 10.

### Add **wait,** use a **repeat** inside a **repeat**

1. Slow down the cat so you can see the pen changes by adding **wait.**

### Add **when green flag clicked**

1. Add the green flag control bar so that your entire script runs when you click the flag button.

## Project II.  <u>Moving to Specific Locations</u>

Open a new project.  Save it, calling it **catmoves.**

Using **go to x: ___ y: ____,**

1.  Use the **go to x: ___ y: ____** to get the cat into the top left corner.

2.  Add another **go to x: ___ y: ____** to get it to the top right corner.

3.  Add another **go to x: ___ y: ____** to get it to the bottom right corner.

4.  Add one more **go to x: ___ y: ____** to get it to the bottom left corner.

5.  Start the script with a **green flag** bar, add **wait** in between so you can see the cat move.  Add **forever** to keep the cat moving.

Using **point in direction _____**

1.  Turn the cat to face the direction it will move by adding  **point in direction ____** after each new position.

Using **glide ___ secs to x: ___ y: ____**

1.  Make a new script which replaces all the "go to" bars with **glide ____ secs to x: ___ y: ____.** Have this script controlled by a **when *space* key clicked**.

## Project III.  <u>Changing the Looks of a Sprite</u>

Open a new project.  Save it, calling it **catlooks.**

Making a new costume

1.  Click on the **costume tab.**

2.  Click on the **copy** button.

3.  Use the drawing tools to change something about the cat.

4.  Click on **OK**  when you are done.

5.  Click on the **scripts** tab to write directions again.

Using **set costume to _____, point away from edge**

1.  Build a script using **set costume to *costume1*, move 10** and **wait *.1***,
    then add **set costume to *costume2*, move 10** and **wait *.1***.

2.  Add **point away from edge.**

3.   Put them inside a **forever**  command.

4.  Start them with a **green flag** control bar.

Using **change _____ effect by ____,  change _____ size by ____**

1.  Add a **change _____ effect by ____** bar inside the **forever**.  Experiment
    with the different effects and with different numbers.

2.  Try out a **change _____ size by ____** bar the same way.

3.  Think about how you could use negative numbers and a second set of
    commands to undo the changes.

Using **say _____,** and **say nothing.**

1.  Add a **say *hello*** inside the forever.  Change the hello to your own words.

2.  Try out the **say nothing** to get the words to go way.  Find the best place for the
    speech bubble to appear, then for the **say nothing** to take it away.