

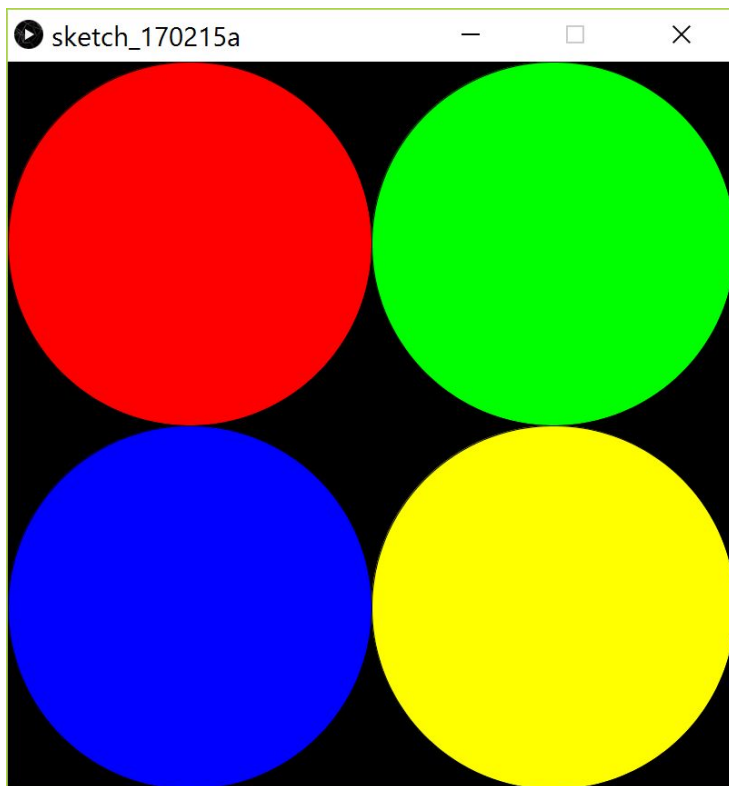
# Grading Lesson

Work through each stage of the lesson, one by one. Show a teacher each stage **before** you move on to the following stage.

## Stage 1

First create a new Processing file, and set “size(800, 800);”

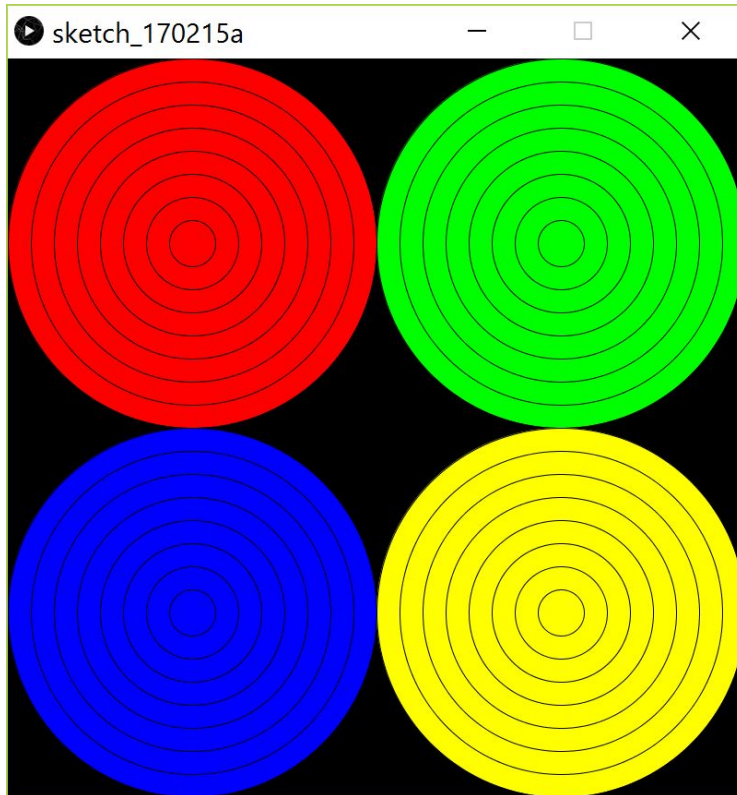
Draw four circles on the screen and colour them in, like this:



Hint: the positions of the first two circles are 200 across, 200 down and 600 across, 200 down.

## Stage 2

Next make each circle into a target. **Make sure you use copy and paste for this! Don't waste all your time typing.** It should look like this now:



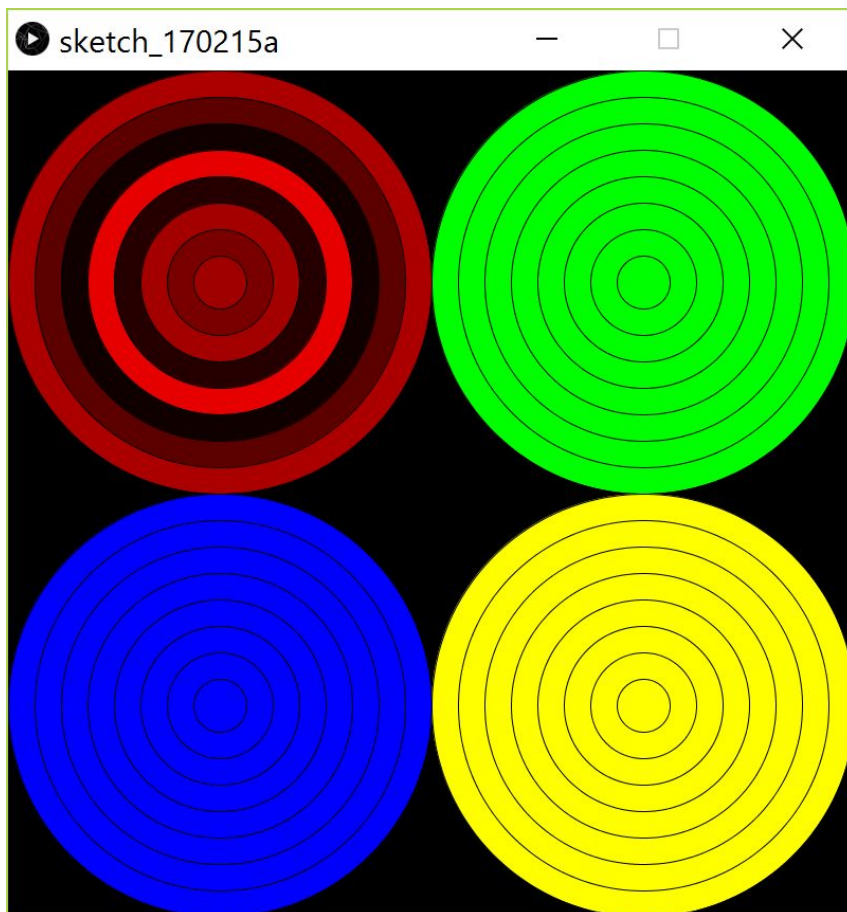
## Stage 3

We can make a random colour by using fill like this:

```
fill(random(255), 0, 0);
```

This will give a random **red**, because the **green** and **blue** parts are zero.

Give every ellipse in the first target a random red fill. Your image should now look something like this:



## Stage 4

Add void setup and void draw to your sketch, *carefully*.

Remember that your size function will go in void setup - almost everything else will go in void draw. *Be very careful with curly brackets.*

Your red target should now be flashing different red colours.

## Stage 5

Make the green target follow the mouse.

## Stage 6

Use variables (int blueRectX and int blueRectY) to position the blue target. Add keyboard controls (using “if keyPressed()” and “if (key == ‘a’”, etc) to allow the target be moved around the screen with the keyboard.

## Stage 7

Use variables to make the yellow circle move automatically when the program starts. It should bounce off each edge of the screen when it hits them. It should move diagonally, starting by moving up at speed