



Cypress Woods High School Scratch Packet 2012



1.Bounce

Program Name: Bounce

Mr. Sprite wants to bounce around the screen, while staying within the x and y boundaries.

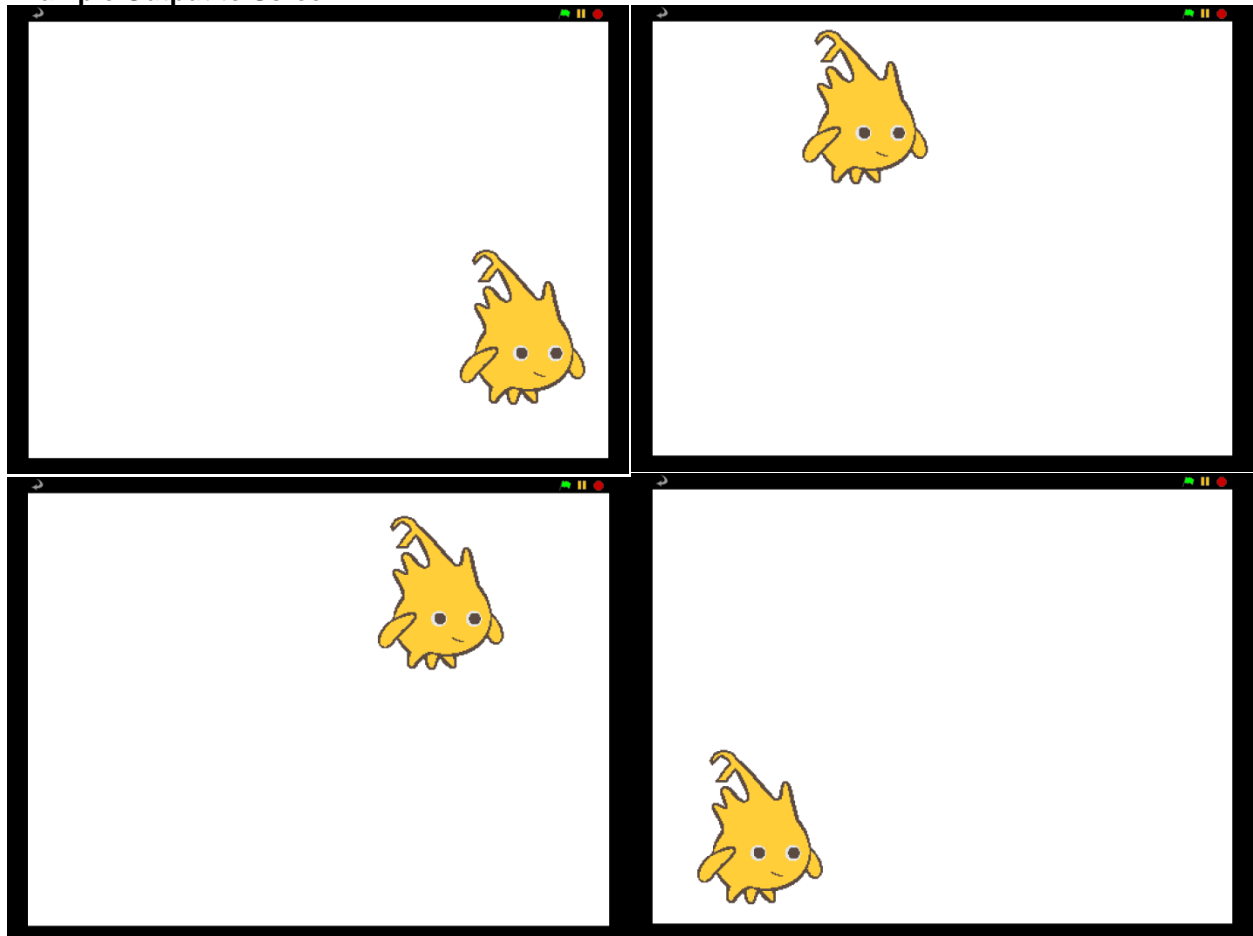
Input

None

Output

Make a sprite that will move on the screen. When the sprite hits a boundary it should bounce. The sprite should bounce off both the x and y boundaries.

Example Output to Screen



2. Every Body Clap Your Hands!

Program Name: clapyourhands

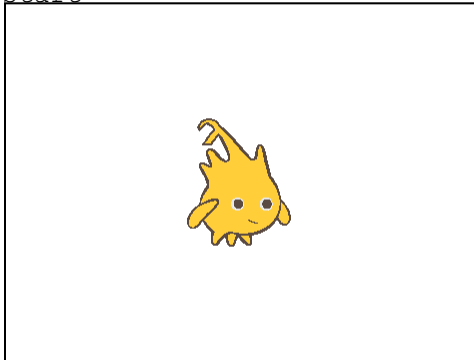
Don't worry about those 5 hops this time, just clap your hands!

Output

The original sprite should say "Everybody clap your hands!" 2 more of the original sprite should then receive broadcasts to appear, and they should then forever make the clap sound!

Example Output to Screen

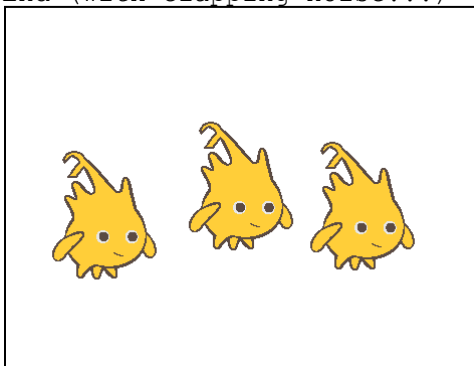
Start



Speak then broadcast



End (with clapping noise!!!)



3. Favorite Candy

Program Name: favcandy

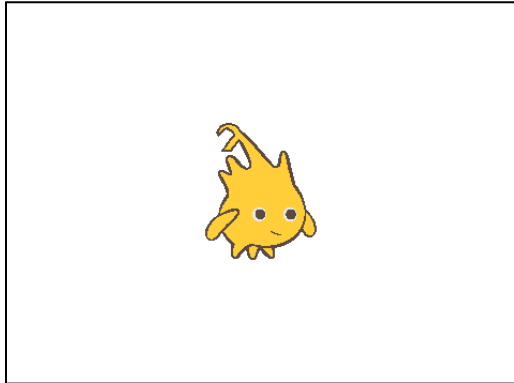
We all love our favorite candy! It just so happens that your favorite Scratch sprite does too!

Output

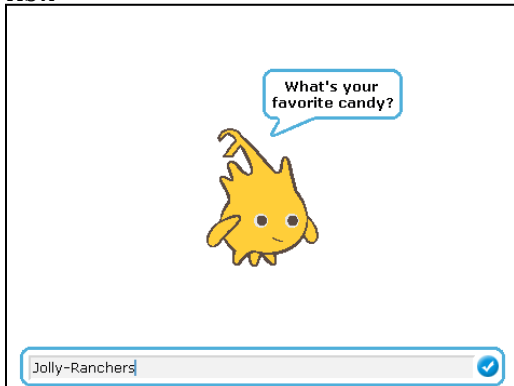
The sprite will ask what your favorite candy is and will say it loves that candy too!

Example Output to Screen

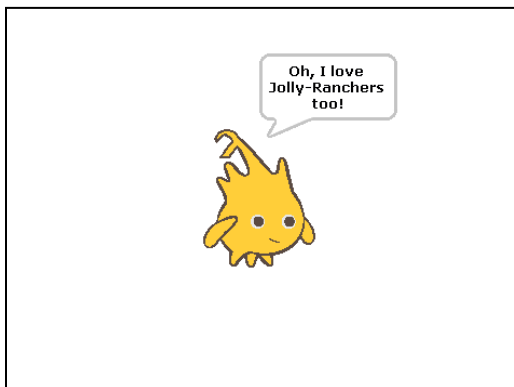
Start



Ask



It Answers!



4. SumEvens

Program Name: SumEvens

Austin is writing a computer program. In the program he needs the sum of the even numbers in a list. You need to create a program that finds the sum of the even numbers.

Input

A list of numbers

Output

The sum of the even numbers

Example Input

1 2 3 4 5 6 7 8 9 6

Example Output to Screen

26

5. Average

Program Name: Average

Austin doesn't know how to take the average of a list of numbers. Please help him write a scratch program that allows him to take the average of a list.

Input

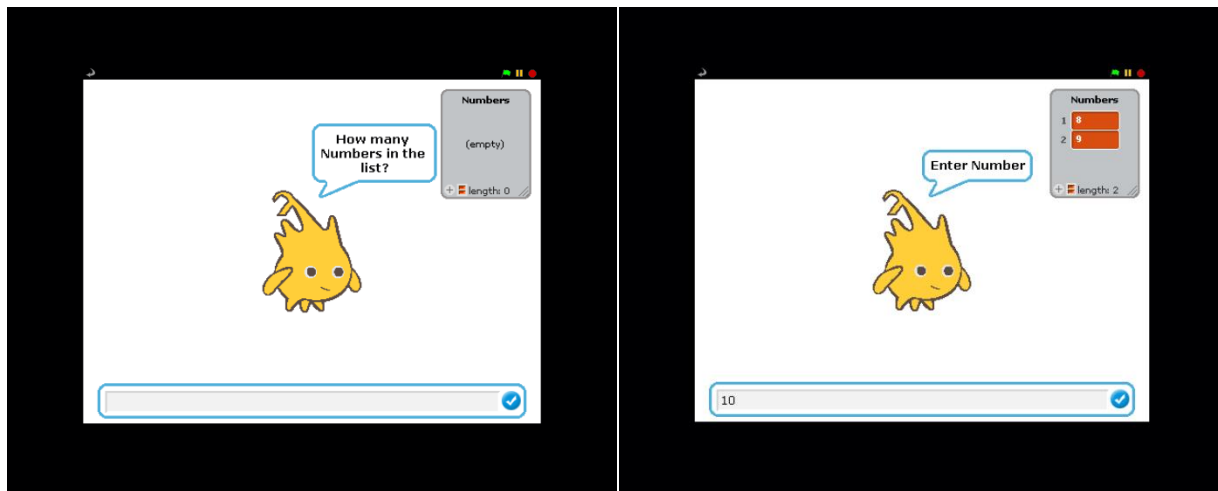
The first number(X) is how many numbers there are. The next X numbers go into the list.

Output

The sprite will say the average of the list.

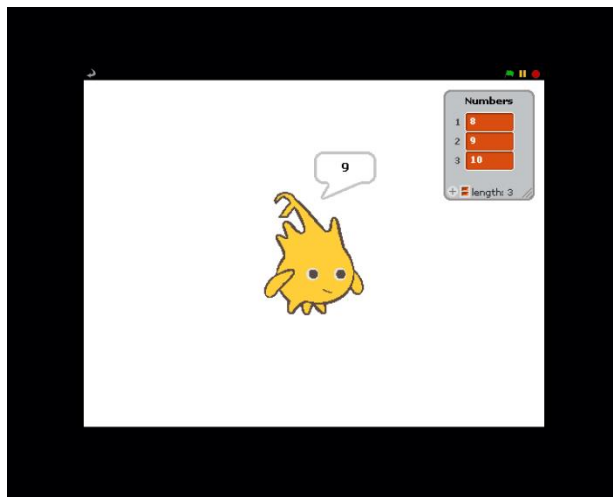
Example Input

3 8 9 10



Example Output to Screen

9



6. StopSign

Program Name: StopSign

Stop signs are everywhere. Now you need to draw one.

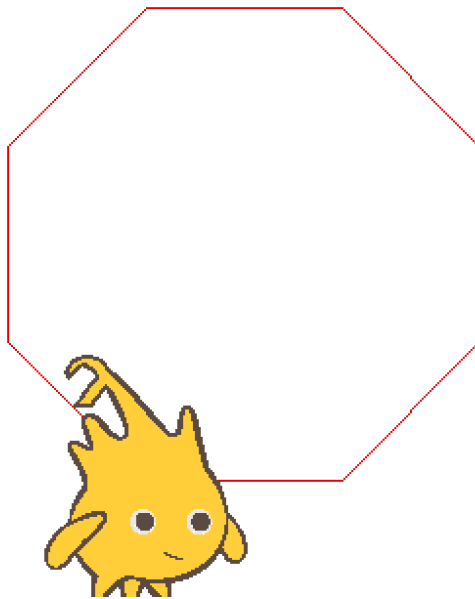
Input

None

Output

Draw a red octagon.

Example Output to Screen



7. Happy Now?

Program Name: HappyNow

Your friend has gone and stubbed his toe..... and then they fell down some steps and sprained their ankle. Instead of checking their well-being, you rush off to make them a smiley face in scratch in an effort to make them feel better.

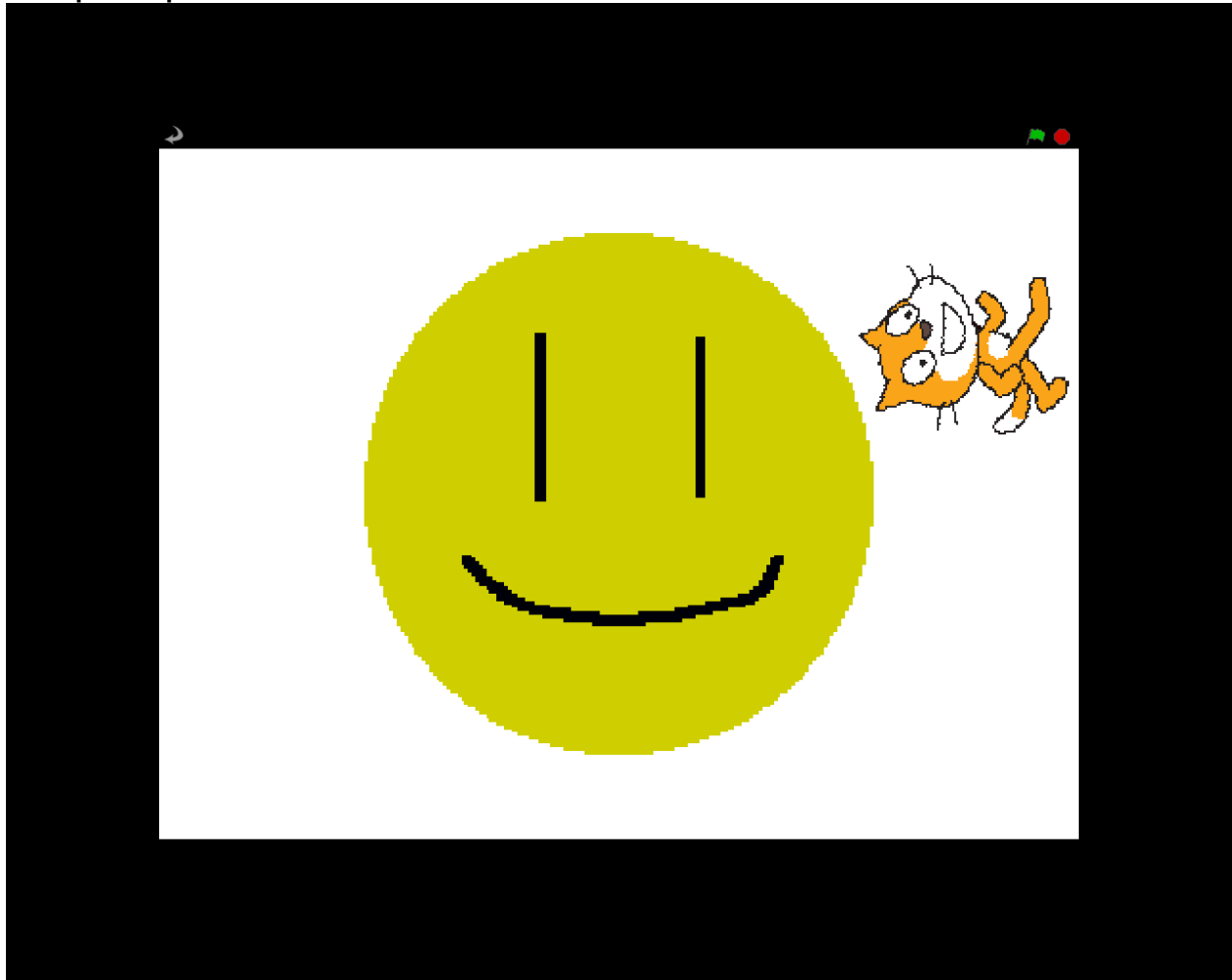
Input

None

Output

A yellow smiley face drawn with code. (No extra sprites... just the original)

Example Output to Screen



.0

8. FancyS

Program Name: FancyS

Zach is writing a novel. However the novel needs a fancy first letter. The first letter in the novel is a S. You need to create a fancy S for Zach's novel. Your sprite will start at (0,-120) facing down. Then you will make a variable that will control how many degrees your sprite will turn. The variable will start at 20 and for every 4 steps you will turn. Then you will subtract .0994 from the variable. The sprite will stop when the variable is less than -20.

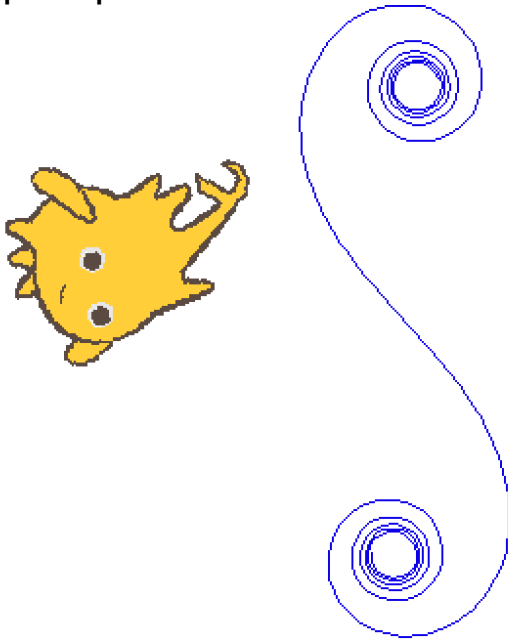
Input

None

Output

Draw this fancy S

Example Output to Screen



9. Square

Program Name: Square

Juan is working on his art project. For the project he is creating an optical illusion using squares. You need to draw the image so Juan can get a good grade.

Input

None

Output

Create the image below. You will make squares, that starts at (0,0), and increases each side by 1 for every square .

Example Output to Screen



10. Radio

Program Name: Radio

Its radio jammin' time.

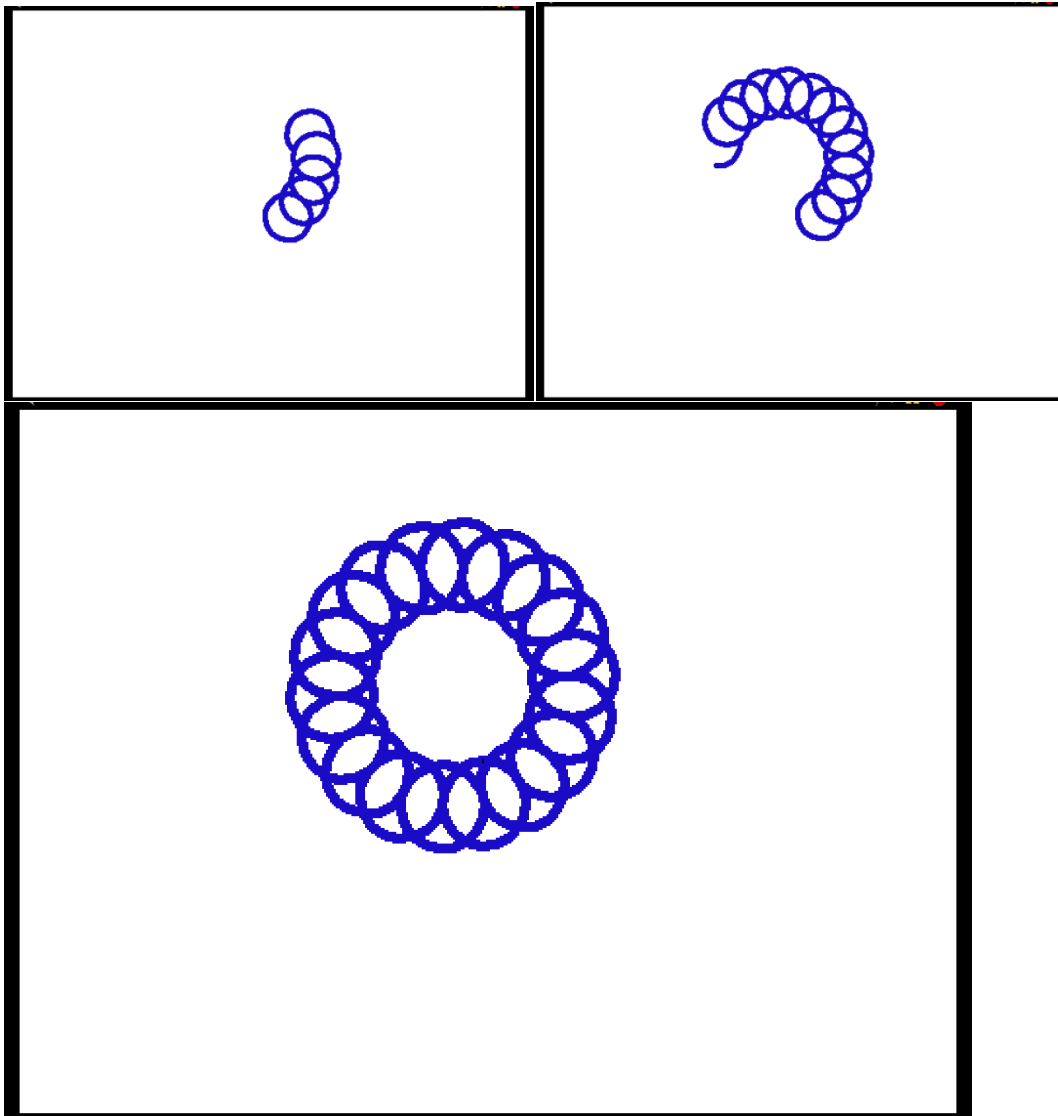
Input

None

Output

A circle of interlocking circles

Example Output to Screen



11. Pyramid

Program Name: pyramid

Ever drawn a triangle? Then you can draw a pyramid! It's just a couple of triangles inside of each other. Just remember all of the triangles share an angle!

Output

The sprite should ask how many levels of the pyramid there are, and then it should draw that number of triangles to look like a pyramid. (Changing the color of the pen is optional! The levels of the pyramid must be equal in height!) After the sprite finishes drawing the pyramid, it should hide so we can see exactly how it did

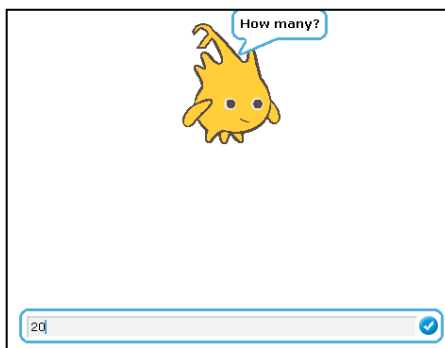
Example Output to Screen

Start (After starting the program)

3



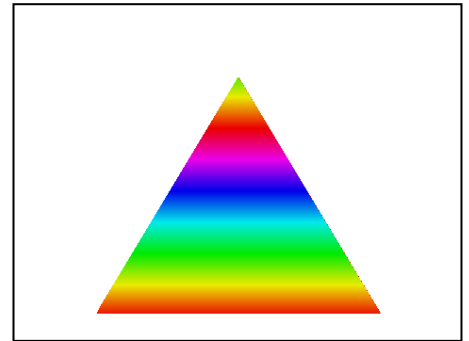
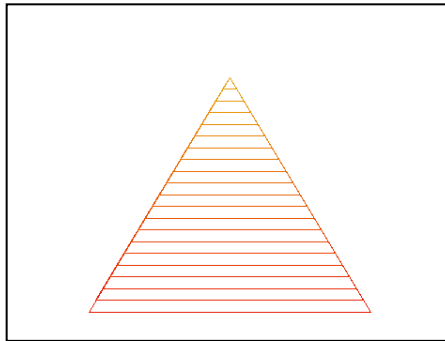
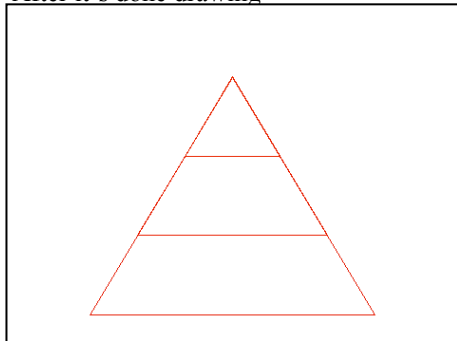
20



250



After it's done drawing



12. Mode

Program Name: Mode

Walter was doing his math homework when he realized that he did not understand how to find the mode. To help Walter you need to make a program that finds the mode of a list. The mode is the number in the list that appears the most.

Input

You will have a list of numbers for the input. The list will have 10 numbers

Output

A sprite will say the mode then it will say how many times the mode is in the list.

Example Input

6 7 5 9 7 2 4 7 4 8

Example Output to Screen

7

3

13. Tangent?!

Program Name: Tangent

Walking home from school, you start feeling weird. In moments you begin to see fairies and unicorns and feel really happy. By the time you're home it wore off and you decide to make scratch code to best recreate what you saw, but all you can remember is "waves".

Input

None

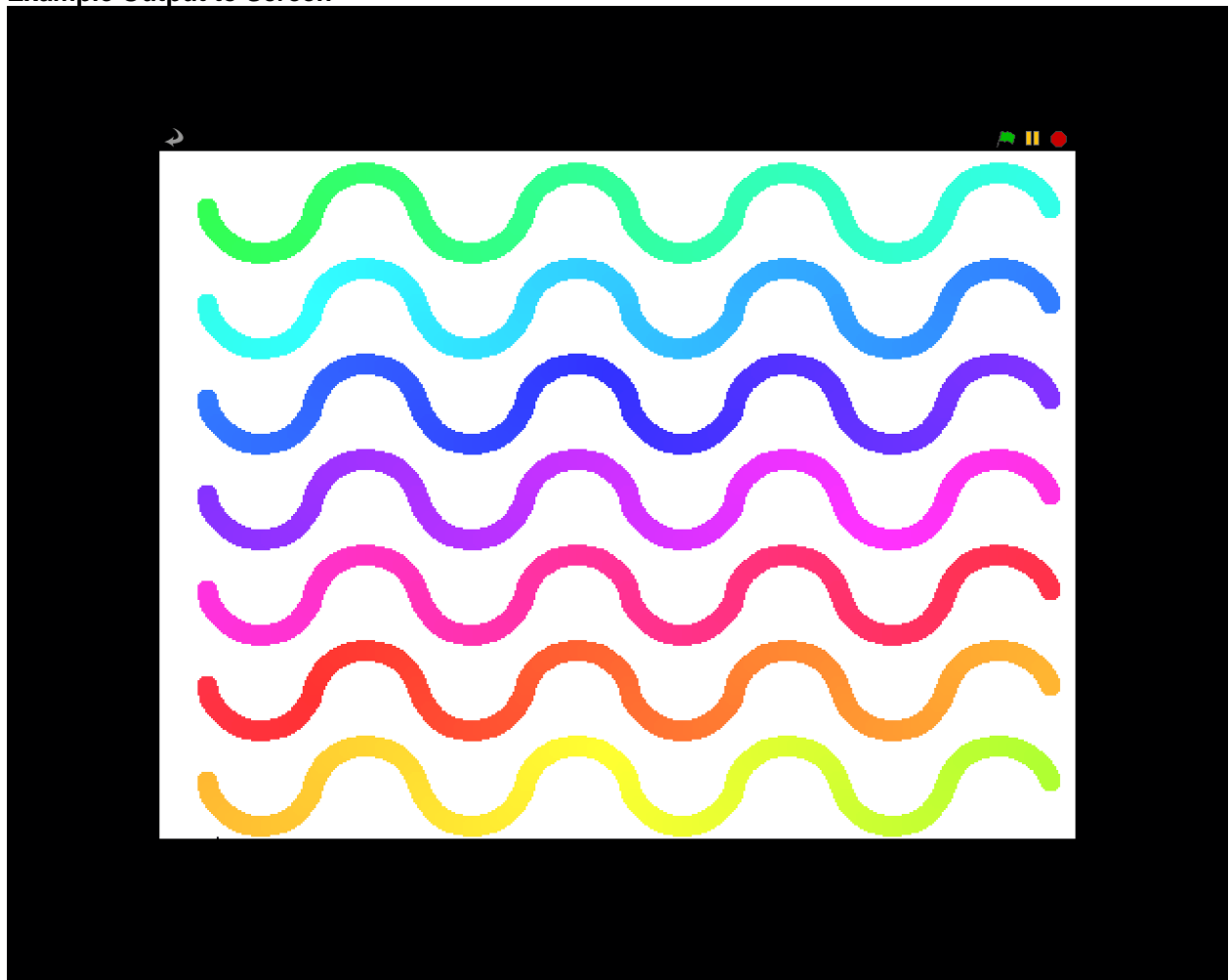
Output

Waves drawn onto the screen

Example Input

None

Example Output to Screen



14. StainedGlass

Program Name: StainedGlass

(yadda yadda) window (bla bla) broken (herderp) your job is to make a new one with code. The shape is a hexagon and doesn't change in size.

Input

None

Output

A window frame as indicated below

Example Output to Screen

