

PF Lab

Activity #01

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23K - 2005

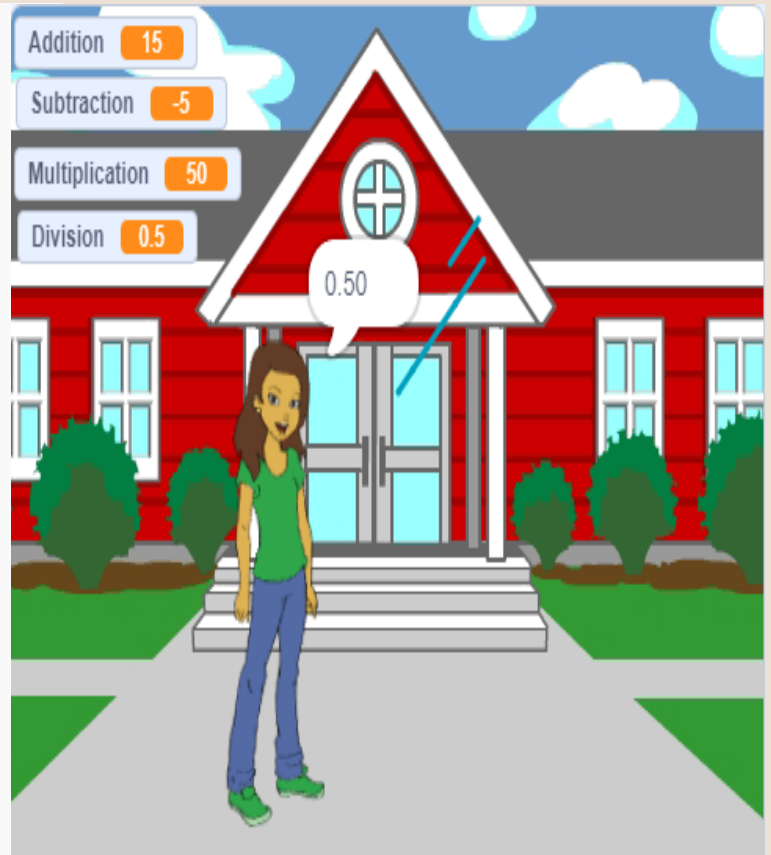
24 Aug 2023

Question #01

Input, Processing and Output Chart

Input	Processing	Output
First number Second Number	Addition Subtraction Multiplication Division	Sum Difference Product Ratio

Scratch Design and Structure

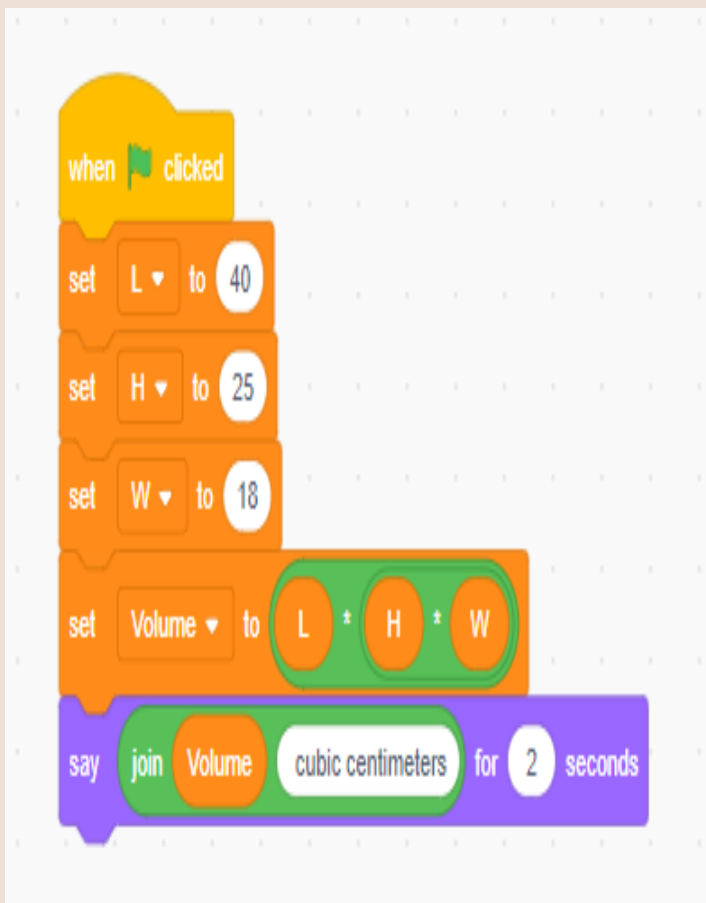


Question #02

Input, Processing and Output Chart

Input	Processing	Output
Length = 40 cm Height = 25 cm Width = 18 cm	Multiplication	Volume

Scratch Design and Structure

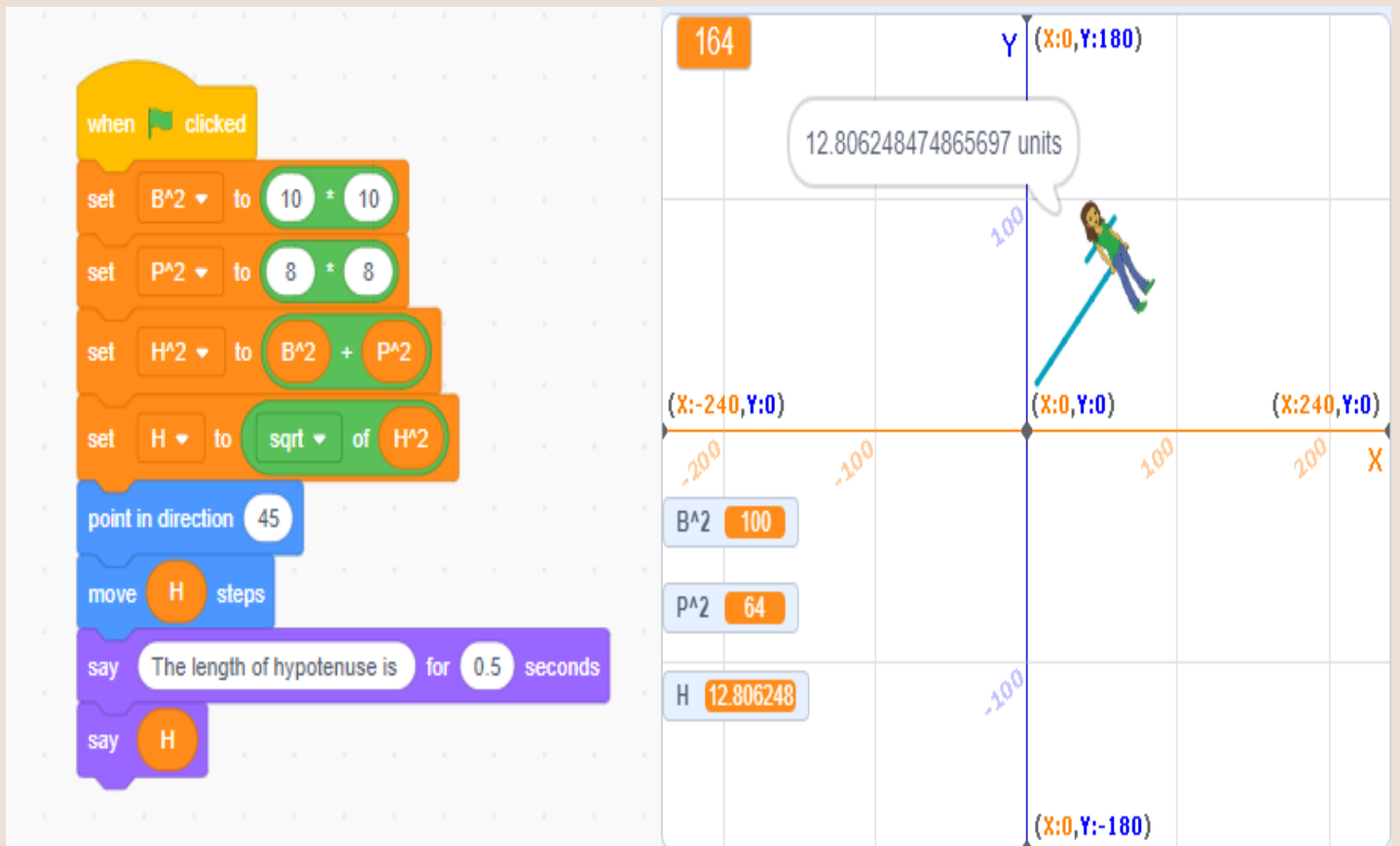


Question #03

Input, Processing and Output Chart

Input	Processing	Output
Length (Base) Height (Perpendicular)	Solving with the help of Pythagoras theorem	Diagonal distance (Hypotenuse)

Scratch Design and Structure

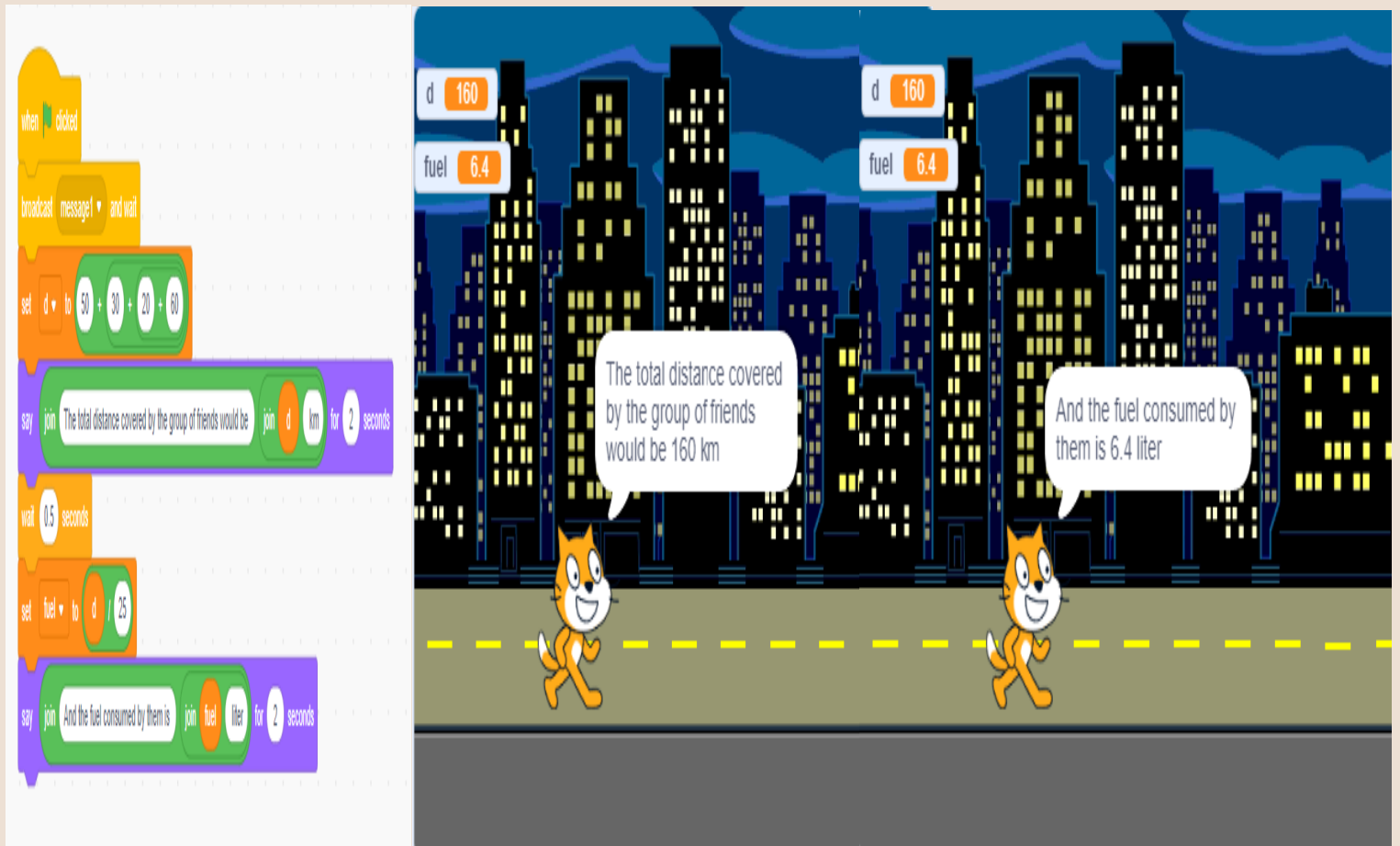


Question #04

Input, Processing and Output Chart

Input	Processing	Output
Distance from Hometown to South Distance from South to West Distance from West to South Distance from South to North	Sum of distance Mean of fuel consumption	Total Distance Fuel Consumed

Scratch Design and Structure

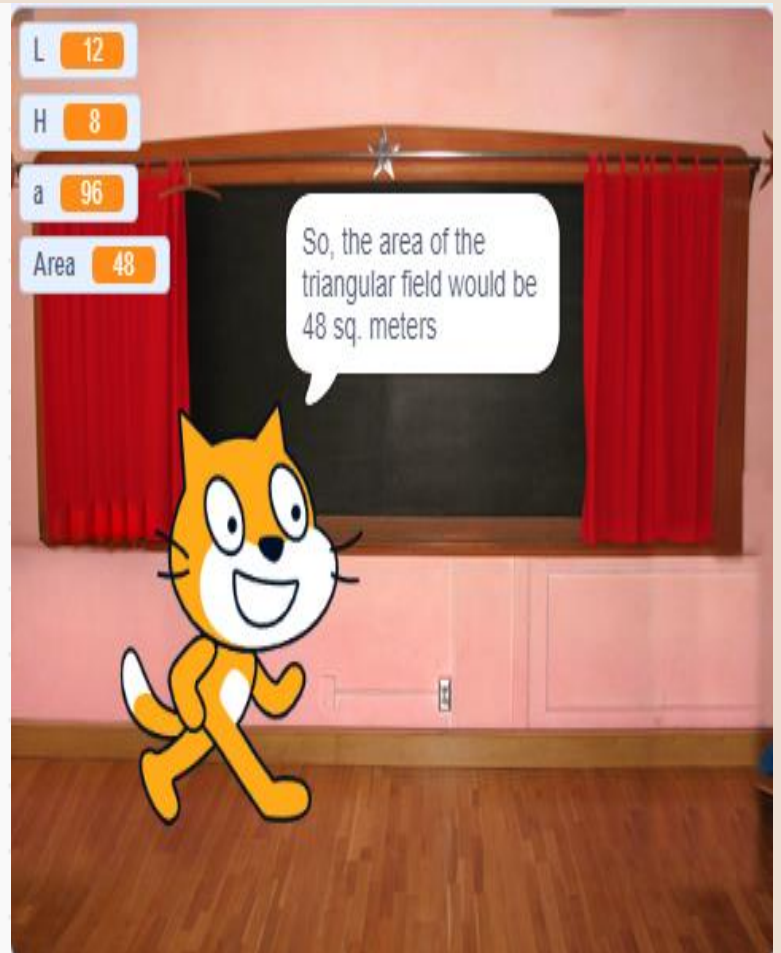
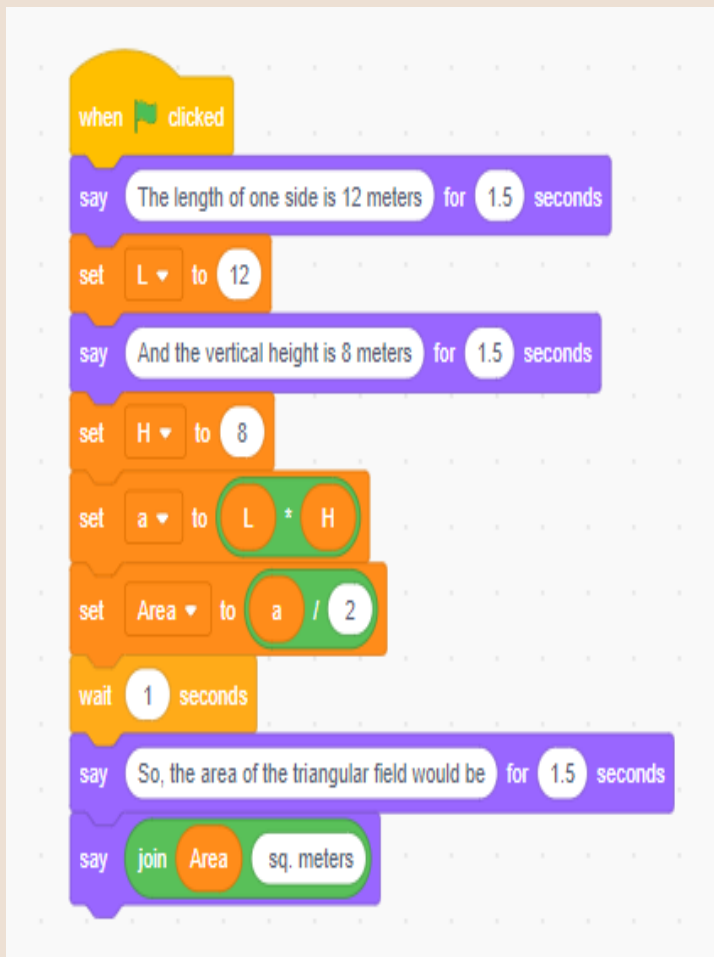


Question #05

Input, Processing and Output Chart

Input	Processing	Output
Length of triangular field Height of triangular field	Multiplication of length and height divided by 2	Area of the triangular field

Scratch Design and Structure



Question #06

Input, Processing and Output Chart

Input	Processing	Output
Initial co-ordinates Final co-ordinates	Using distance formula	Distance between the given points

Scratch Design and Structure

The Scratch script on the left performs the following steps:

- When green flag clicked, say "Enter the initial co-ordinates" for 1.5 seconds.
- Ask "Value of x1?" and wait.
- Set x1 to the answer.
- Ask "Value of y1?" and wait.
- Set y1 to the answer.
- Wait 0.5 seconds.
- Say "Enter the final co-ordinates" for 1.5 seconds.
- Ask "Value of x2?" and wait.
- Set x2 to the answer.
- Ask "Value of y2?" and wait.
- Set y2 to the answer.
- Wait 0.5 seconds.
- Set x to $x2 - x1$.
- Set X to $x * x$.
- Set y to $y2 - y1$.
- Set Y to $y * y$.
- Set X+Y to $X + Y$.
- Set D to $\sqrt{X+Y}$.
- Say "The distance would be" for 1.5 seconds.
- Say join D units.

The stage on the right displays the following variables:

- x1: 2
- x2: 4
- y1: 3
- y2: 5
- x: 2
- y: 2
- X: 4
- Y: 4
- X+Y: 8
- d: 0
- D: 2.828427

A speech bubble from the Scratch cat says: "2.8284271247461903 units".