

Qs) [PAC] To determine a triangle's area on its height and base.

Ans Given Data :

Height (H)  
Base (B)

Required Data:

Area of Triangle

Processing Req:

Formula:

$$A_T = \frac{1}{2} B \times H$$

Put values & and  
Print it.

Alternatives of P:

Value of Base & Height  
can be constant or  
varied.

Qs) [IPO] Calculate a person's body Mass Index.

		Module	Output
Input	Process	Ref	
Weight (W)	Enter the value	Read	Body Mass
Height (H)	of Weight & Height		Index.
	Calculate (BMI)	Calc	
	Print / Display	Point	
	End	End	

Qn3) Pseudocode for a program that outputs the largest of three numbers.

Ans Start

Point "Enter three number"

Input num1, num2, num3

If num1 > num2 And num1 > num3 then,

Point "num1 is largest"

Elseif num2 > num1 And num2 > num3

Point "num2 is largest"

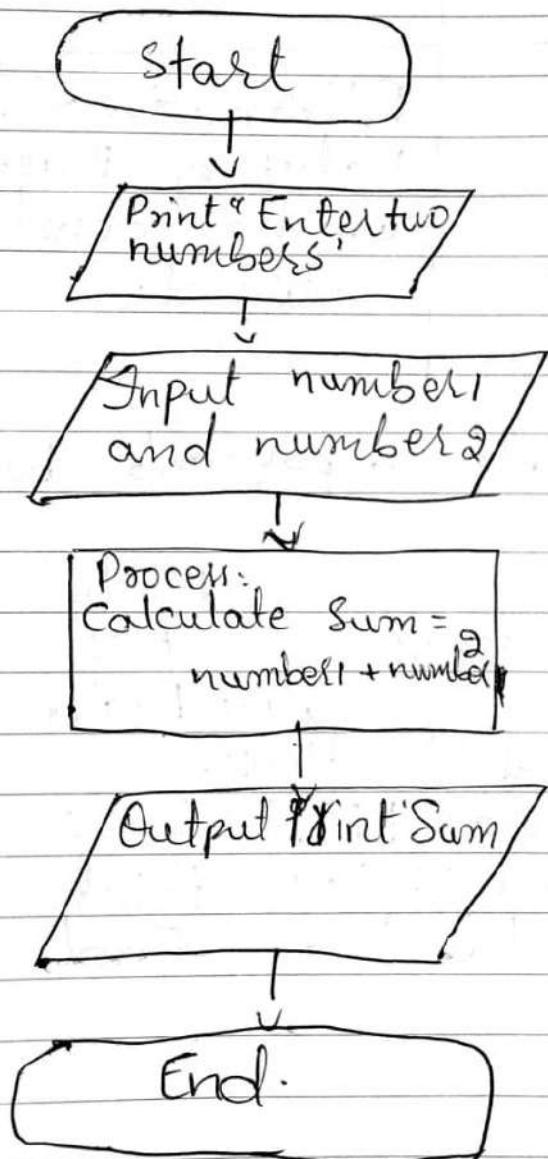
Else

Point "num3 is largest"

End

Qs 4) Draw flow chart that reads two numbers and print sum.

Aus.



Ques

Algorithm to determine whether has passed or failed based on marks obt in three subjects:

Ans

Start

Input marks of sub1 , sub2 and sub3

Calculate Average =  $\text{Sub1} + \text{Sub2} + \text{Sub3} / 3$

If average marks are greater than passing marks then passed  
otherwise Failed.

End.

```
when green flag clicked
  ask [Write a number:] and wait
  set [number] to [answer]
  if [number] = [0] then
    say [Neutral] for [2] seconds
  else
    if [number] > [0] then
      say [Positive] for [2] seconds
    else
      say [Negative] for [2] seconds
```

Scratch 3.31.1

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Code Costumes Sounds

Sensing Motion

touching mouse-pointer ?

touching color [red] ?

color [red] is touching [orange] ?

distance to mouse-pointer ?

Events

Control

ask [What's your name?] and wait

answer

Sensing

key space pressed?

mouse down?

mouse x

mouse y

set drag mode [draggable]

Operators

Variables

My Blocks

when green flag clicked

ask [Enter the number:] and wait

set Number to [answer]

if [Number mod 2 = 0] then

say [Even] for [2] seconds

else

say [Odd] for [2] seconds

Sprite1: Number 23

Sprite Sprite1 Stage

Show [target] [zap]

x 0 y 0

Size 100 Direction 90

Backdrops

Scratch Project

The Scratch project consists of a script attached to the cat sprite. The script starts with a "when green flag clicked" hat block. It asks the user for a number and sets it to the variable "Number". Then, it uses an if-then block to check if the number is even or odd. If it's even, the cat says "Even" for 2 seconds; if it's odd, the cat says "Odd" for 2 seconds.

 Code

## Costumes

## Sounds

## Motion

move (10) steps

## Looks

turn (15) degrees

## Sound

turn (15) degrees

## Events

go to [random position]

## Control

go to x: (0) y: (0)

## Sensing

glide (1) secs to [random position]

## Operators

glide (1) secs to x: (0) y: (0)

## Variables

point in direction (90)

## My Blocks

point towards [mouse-pointer]

## Blocks

change x by (10)



```
when green flag clicked
ask [Enter the Length:] and wait
set [Length v] to [answer]
ask [Enter the width:] and wait
set [Width v] to [answer]
set [Area v] to [Length * Width]
set [Add v] to [Width + Length]
set [Perimeter v] to [2 * Add]
say [join [Area:] [join [Area] [join [Perimeter:] [Perimeter]]] for (2) seconds
```



Length 2

Width 2

Sprite1: Area 4

Perimeter 8

Add 4



Sprite Sprite1

x 0 y 0

Show [target v] [zap v]

Size 100

Direction 90



Stage

Backdrops





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?

Code

Costumes

Sounds

Motion

Looks

Sound

Events

Control

Sensing

Operators

Variables

My Blocks

if [then]

else

wait until

repeat until

stop [all v]

when I start as a clone

create clone of [myself v]

delete this clone

Sensing

when green flag clicked

set ID v to 0000  
set Password v to 1234  
set Login v to False

repeat until [Login = true]

ask [Enter Id:] and wait

if [answer = 0000] then

ask [Enter Pass:] and wait

if [answer = 1234] then

say [Login Successful !!!] for 2 seconds

set Login v to true

else

say [Either Id or pass is wrong] for 2 seconds

stop this script

ID 0000

Password 1234

Login true



Sprite1

x 0

y 0

Show

Size

100

Direction

90

Stage

Backdrops

Date: \_\_\_\_\_

QND10

Pseudocode to determine whether  
a number is positive or negative.

As Start

Point "Enter a number"

Input number

If number > 0 then,

Point "number is positive"

Else if number < 0

Point "number is negative"

~~End~~ Else

Point "It is Zero"

End.