
















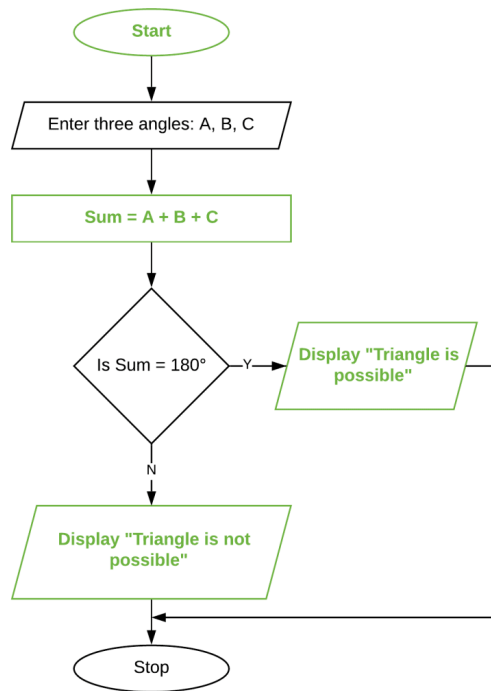
Flow chart (Questions)

Algorithms	Algorithm can be defined as: “A sequence of activities to be processed for getting desired output from a given input.”																		
Problem Solving	Problem solving is the act of defining a problem; determining the cause of the problem; identifying, prioritizing, and selecting alternatives for a solution; and implementing a solution. The problem-solving process. Problem solving resources.																		
Flowcharts	A flowchart is a type of diagram that represents an algorithm, workflow or process. The flowchart shows the steps as boxes of various kinds, and their order by connecting the boxes with arrows. This diagrammatic representation illustrates a solution model to a given problem. Flowcharts are used in analyzing, designing, documenting or managing a process or program in various fields.																		
Symbols Used	<table><tr><th>Symbol</th><th>Name</th><th>Function</th></tr><tr><td></td><td>Start/end</td><td>An oval represents a start or end point</td></tr><tr><td></td><td>Arrows</td><td>A line is a connector that shows relationships between the representative shapes</td></tr><tr><td></td><td>Input/Output</td><td>A parallelogram represents input or output</td></tr><tr><td></td><td>Process</td><td>A rectangle represents a process</td></tr><tr><td></td><td>Decision</td><td>A diamond indicates a decision</td></tr></table>	Symbol	Name	Function		Start/end	An oval represents a start or end point		Arrows	A line is a connector that shows relationships between the representative shapes		Input/Output	A parallelogram represents input or output		Process	A rectangle represents a process		Decision	A diamond indicates a decision
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CPU	CPU itself has following three components. -Memory or Storage Unit.																		

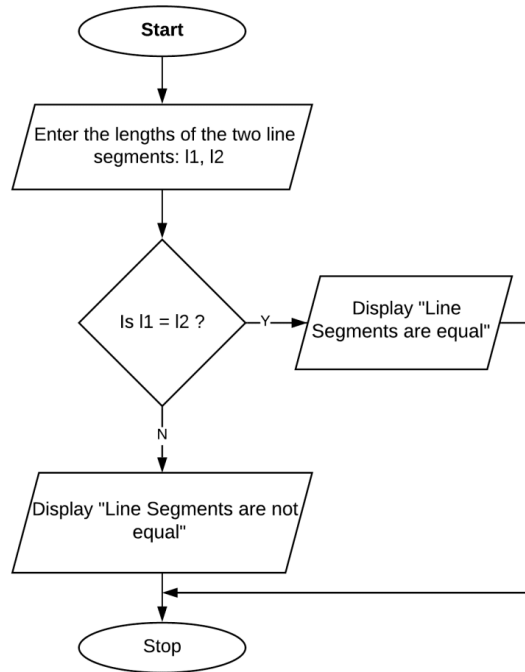
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	-Control Unit. -ALU(Arithmetic Logic Unit)
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1. Make a flowchart to check whether a triangle is possible or not.



2. Make a flowchart that accepts the length of two different line segments and check whether they are equal or unequal. Display the message accordingly.



3. Write an algorithm to go for a class picnic.

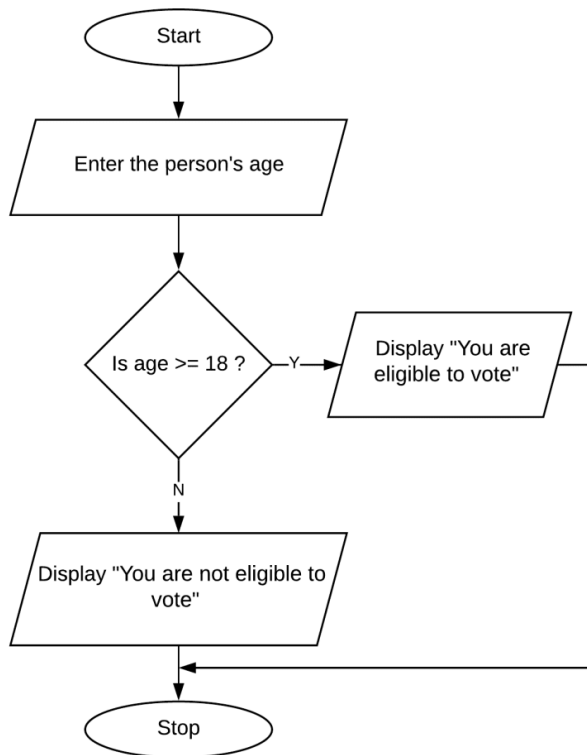
Step 1: Start
Step 2: Decide the picnic venue, date and time
Step 3: Decide the picnic activities
Step 4: Hire a vehicle to reach to the venue and comeback
Step 5: Goto to the picnic venue on the decided date
Step 6: Do the activities planned for the picnic
Step 7: Come back to school in the hired vehicle
Step 8: Stop

4. Write an algorithm that inputs the age of a person and check whether he/she is eligible to vote or not. A person is eligible to vote only when he/she is 18 years or more.

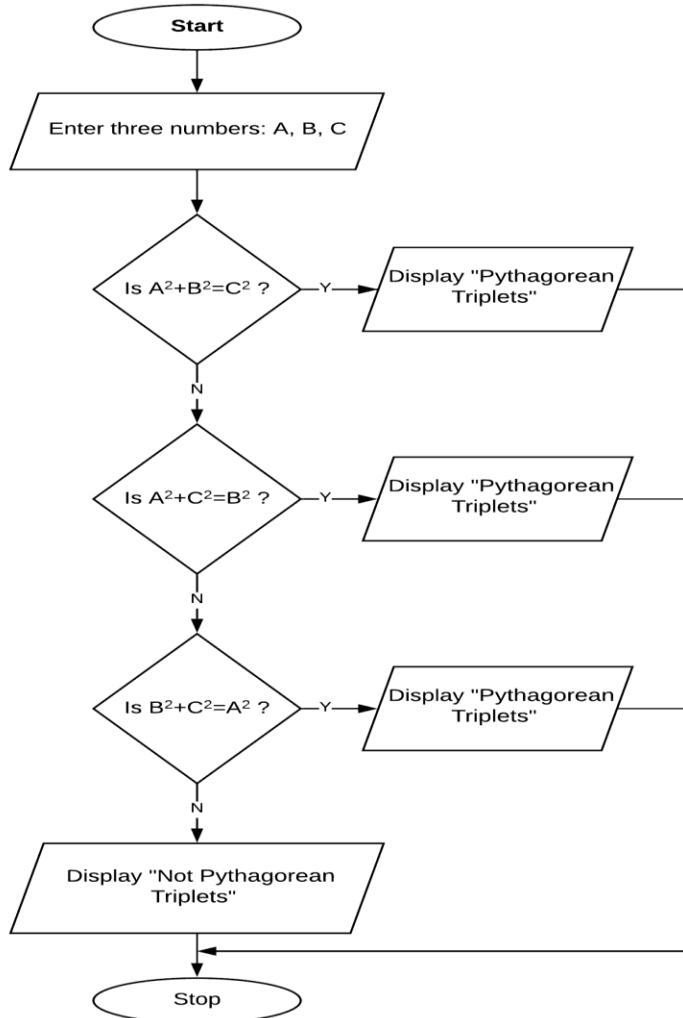
Step 1: Start
Step 2: Accept the age of the person.
Step 3: If age is greater than or equal to 18, then display 'You are eligible to vote'.
Step 4: If age is less than 18, then display 'You are not eligible to vote'.

Step 5: Stop

5. Make a flowchart for the problem given in Q4.



6. Draw the flowchart to find 'Pythagorean Triplets' or not. Display the message accordingly.
[Hint: Use Pythagoras Formula for a Right-angled Triangle: $h^2 = p^2 + b^2$]

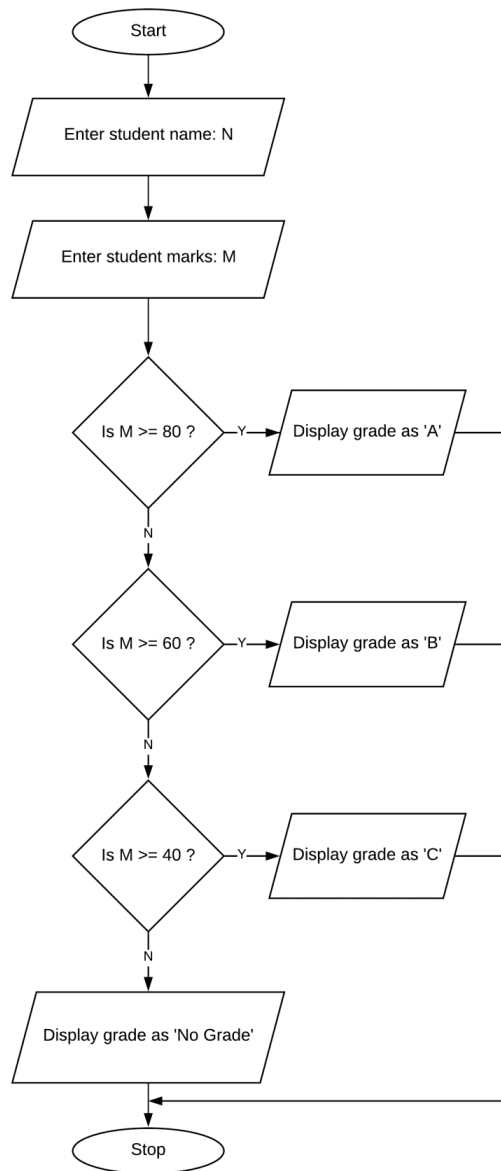


7. Draw a flowchart to display the grades as per the table given below:

Marks obtained	Grade
80% or more	A
60% or more but less than 80%	B
40% or more but less than 60%	C

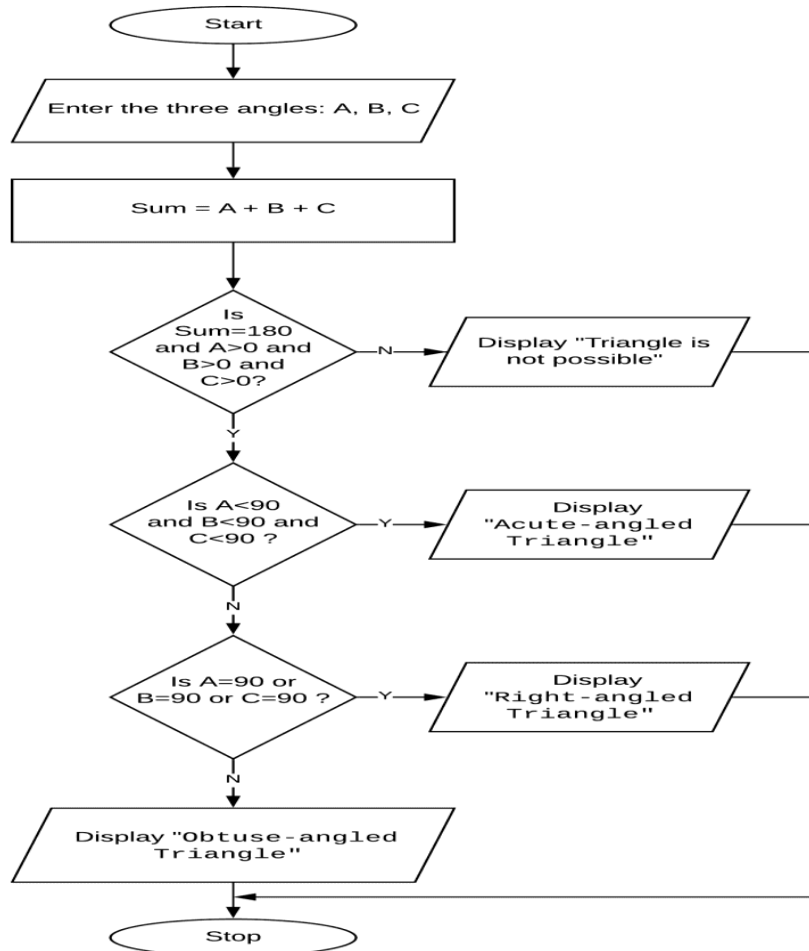
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Marks obtained	Grade
Less than 40%	No Grade



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8. Draw a flowchart to input three angles of a triangle and check whether a triangle is possible or not. If possible, then check whether it is an 'Acute-angled Triangle', 'Obtuse-angled Triangle' or a 'Right-angled Triangle'.



9. A librarian charges a fine for books, if returned late. The tariff for the fine is given below:

No. of days Fine

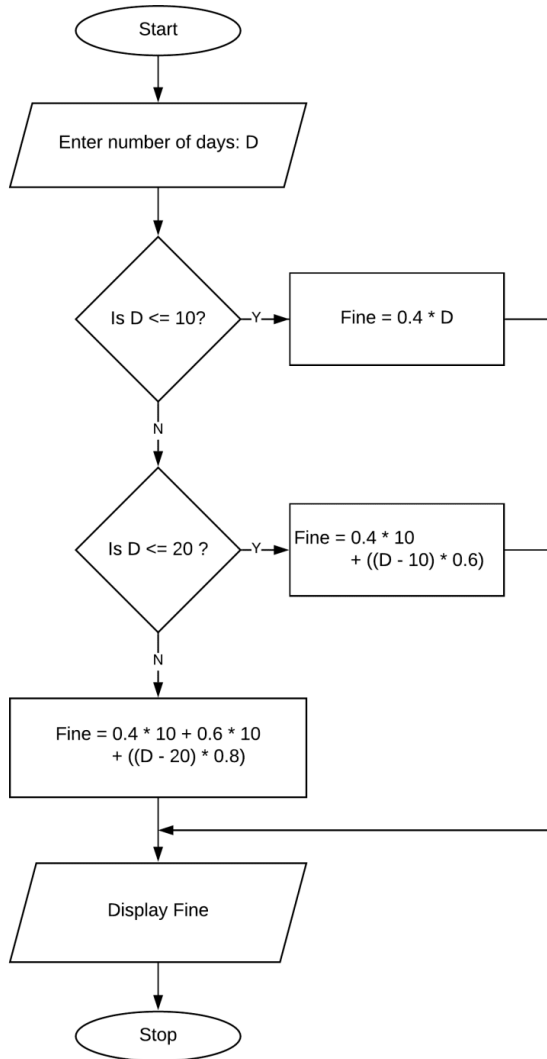
For the first ten days 40 paise per day

Eleven to twenty days 60 paise per day

More than twenty days 80 paise per day

Draw a flowchart to calculate the fine assuming that a book is returned 'N' days late.

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Home work

10. Write an Algorithm to input three angles of a triangle and check whether a triangle is possible or not. If possible, then check whether it is an 'Acute-angled Triangle', 'Obtuse-angled Triangle' or a 'Right-angled Triangle'.
11. Draw flowchart to find the largest among three different numbers entered by user.
12. Write an algorithm Accept a number and check:
 - (a) whether the number is divisible by 2 and 5.
 - (b) whether the number is divisible by 2 but not by 5.

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(c) whether the number is divisible by 5 but not by 2.
Display the message accordingly