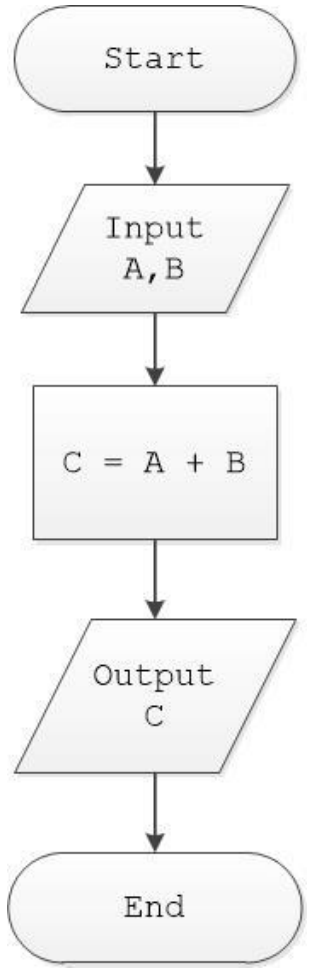
Tutorial 1:
Flowchart Basics

Flowchart basics

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

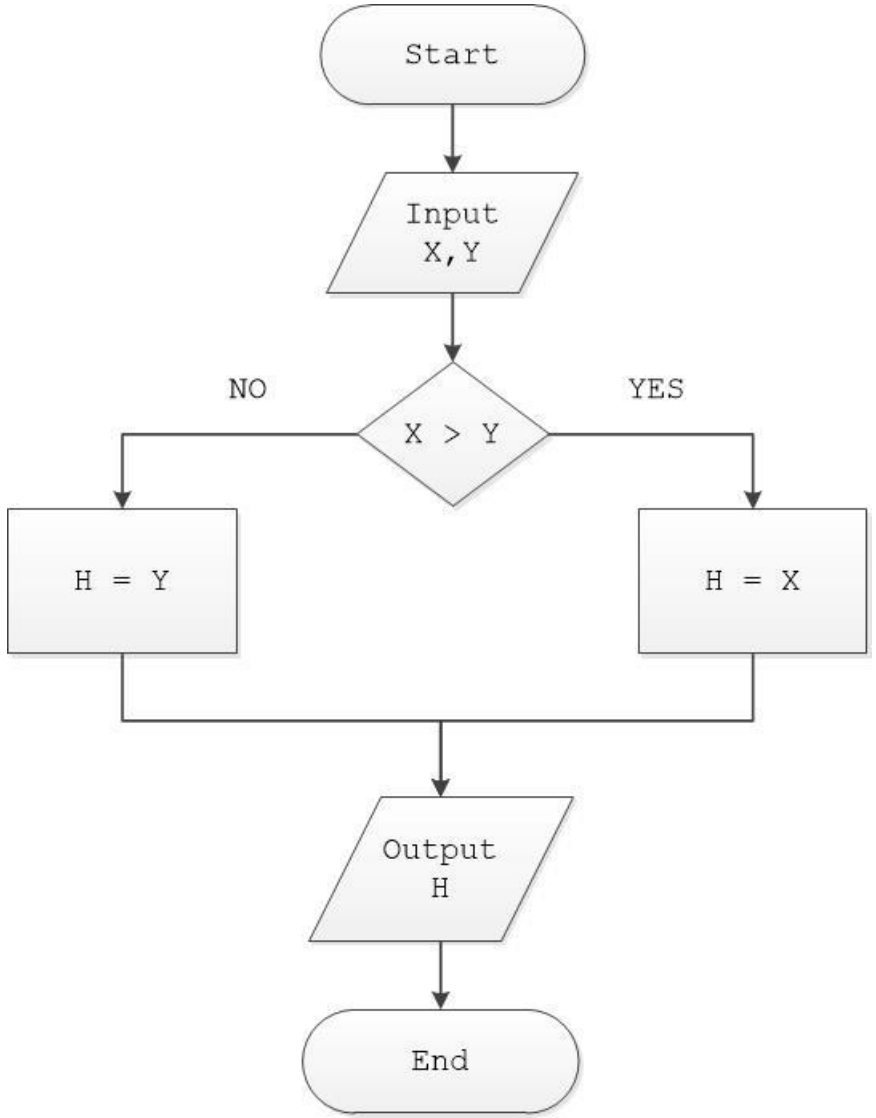
Addition of two numbers

```
Step 1: Input A and B
Step 2: Add A and B and
    store in C
Step 3: Output C
```



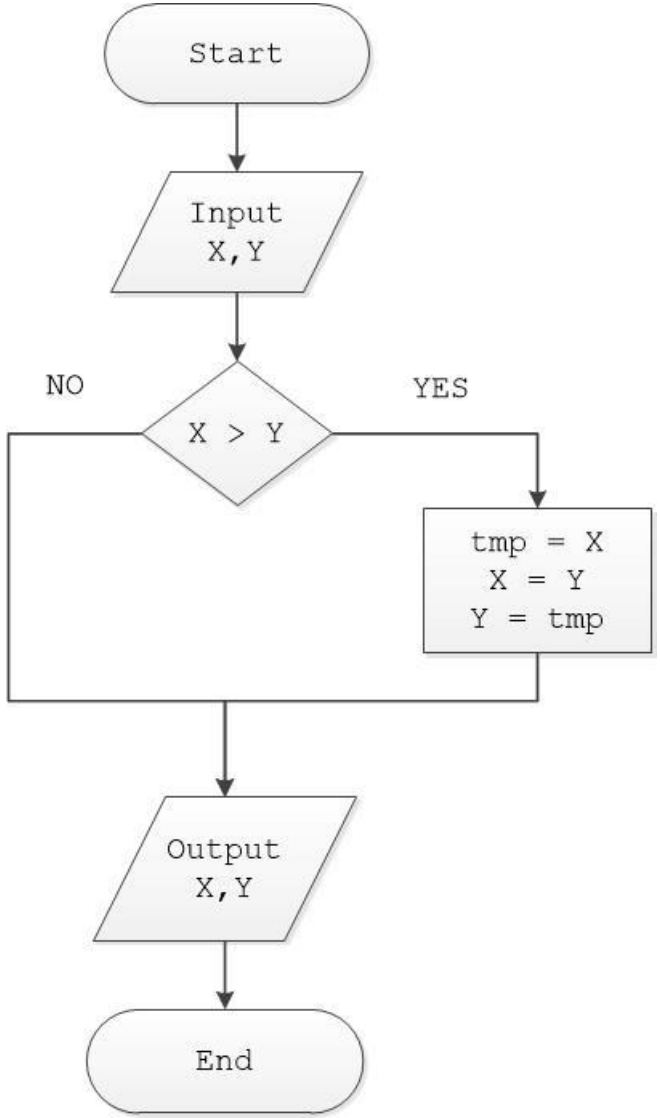
Find the greatest of the two numbers

```
Step 1: Input X and Y
Step 2: If X > Y then H = X;
    otherwise H = Y
Step 3: Output H
```



Sort two numbers in ascending order

```
Step 1: Input X and Y
Step 2: If X > Y then
    tmp = X                    X
= Y                        Y =
tmp
Step 3: Output X,Y
```



Make flowcharts for the following

1. Euclidean algorithm to the GCD of two numbers
2. Algorithm to find the factorial of a number

```
5! = 5 x 4 x 3 x 2 x 1 = 120
```

Euclidean Algorithm

Description: This algorithm assumes that its input consists of two positive integers and proceeds to compute the greatest common divisor of these two values.

Procedure:

Step 1. Assign M and N the value of the larger and smaller of the two input values, respectively.

Step 2. Divide M by N, and call the remainder R.

Step 3. If R is not 0, then assign M the value of N, assign N the value of R, and return to step 2; otherwise, the greatest common divisor is the value currently assigned to N.

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