Dr . D. Y. Patil Arts Commerce and Science College,

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Class : FYBCA(Sci.) Sem-I

Subject : Problem Solving & C Programming

ACTIVITY

Q. Write an algorithm and draw a flowchart of given examples.

1. 1) Subtraction of two numbers.

Algorithm:

Input = 2 Numbers.

Output = Subtraction of the Number.

Step 1: Start

Step 2: Accept number A and B

Step 3: Sub= A-B

Step 4: Display Sub

Step 5: Stop

Flowchart :

Start

Accept Number A&B

Sub=A-B

Display sub

Stop

2) Find minimum of three numbers.

Algorithm :

Input = Accept 3 numbers

Output = find minimum of three numbers

Step 1: Start

Step 2: Read number a, b and c

Step 3: check minimum numbers

if a<b and a<c

print minimum=a

else if b<a and b<c

print minimum=b

else c<a and c<b

print minimum=c

Step 4: Stop

Flowchart :

|  |
| --- |
| Print c is minimum no.  Print a is minimum no.  start  Accept 3 numbers a, b, c  If b < c ?  If a < c ?  Print b is minimum no.  If a < c ?  Stop |

1. 3) Displaying sum of first n numbers.

Algorithm :

Input = Accept n

Output= Sum of n numbers

Step 1: Start

Step 2: Read n

Step 3: Initialize i=1, Sum=0

Step 4: Sum=Sum+i

i=i+1

Step 5: Check if i<=N then go to step 4

else go to step 6

Step 6: Display Sum

Step 7: Stop

Flowchart :

|  |
| --- |
| sum = sum + 1  i = i + 1  stop  Display sum  If i<=n  Initialize i = 1  start  Read n |

4) Find factors of numbers.

Algorithm :

Input = Accept number

Output= Find factors of numbers

Step 1: Start

Step 2: Read N

step 3: Initialize i=1

Step 4: check if N%i=0

Display value of i

else go to step 5

Step 5: i=i+1

Step 6: if i<=N go to step 4

else go to step 7

Step 7: stop

Flowchart :

If i<=n

If num%i==0

Read n

i = i + 1

start

Initialize i = 1

Display value of i

stop

|  |
| --- |
|  |

5) Check given number is palindrome or not.

Algorithm :

Input = number 123

Output= number is palindrome or not

Step 1: start

step 2: Accept number from user no

Step 3: no1=no no1=121

step 4: Initialize rev=0

step 5: rem=no%10

step 6: rev=rev\*10+rem

step 7: no=no/10

step 8: no>0 then go to step 5 no=0

else go to step 9

step 9: print the reverse number rev=121

step 10: check if (no1==rev) then

print no is palindrome

else

print no. is not palindrome

step 11: stop

|  |
| --- |
|  |

Flowchart :

stop

No. is palindrome

No is not palindrome

(no 1==rev) them

start

Display rev

Accept no

If (no>0) then

rem= no%10

rev= rev\*10+rem

No= no/10

Initialize rev=0