④

1) Even or odd

  1. Start

  2. Print "Enter Number"

  3. Read input number

  4. if number %2 == 0

        print "Even Number"

  5. else

        print "Odd Number"

  6. End

2) Factorial

  1. Start

  2. Print "Enter Number"

  3. Read number

  4. Set fact = 1 , i = 1

  5. While i ≤ number

      fact = fact * i

      i++

  6. Print fact

  7. End

3) Factorial using Recursion

  1. start

  2. Read number

  3. call fact(number)

  4. Print fact

  5. End

fact(number)

  1. if number == 1 then

        return 1

  2. else

      fact = fact * fact(number-1)

  3. return fact.

4) Swap 2 numbers without using 3rd variable approach

1. Start
2. Read num1, num2
3. num1 = num1 + num2
   num2 = num1 - num2
   num1 = num1 - num2
4. Print num1, num2
5. Stop

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5) How to check Positive or Negative number

1. Start
2. Read number
3. if number > 0
      print " Positive Number"
   else if number < 0
      print " Negative Number"
4. stop

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6) Leap year or not

● Start
2. Read Year
3. if (year % 4 == 0 & year % 100 != 0) OR year % 400 == 0
      print " Leap year"
4. else
      print " Not leap year".
5 stop.

7) Print 1 to 10 without using loop.

1. Start
2. Read from_no, to_no
3. Call print_no (from, to)
4. End

Print_no (~~num~~) (from, to)
1. if (~~num == 1~~)   ~~& if (~~
       print num
2. else
       print

~~print from~~
~~if (from != to)~~
~~pri print_no ((from-1), to)~~

1. start
2. call print_no (1, 10)

Print_no (from, to)
   1. if from == to
           print 'from
   2. else
           print from
           print_no ((from+1), to)
3. stop

---

7) Print 1 to 10 without using loop.

1. start
2. call print_no (1, 10)

Print_no (from, to)
   1. if (from ≤ to)
           print (from)
           call print_no ((from+1), to)
3. Stop.

8) print digits of a given number

1. Start

2. Read number

3. declare i = 0, array, num

4. while number != 0

    num = number % 10

    array [i] = num

    number = number / 10

    i + +

5. print array

6. End.

9) print all factors of given number

1. start

2. Read number

3. declare array, j = 0

4. for i = 1 to i ≤ (number ~~/2~~)

    if (num % i == 0)

      then arr [j] = i

        ~~num = num/i~~

    endif j++

  endfor

5 print array

6. End.

10) Sum of the digits of a given number

1. Start
2. Read number
3. declare i=0, array, num, sum=0
4. while (number != 0)

   num = number % 10

   array[i] = num

   i++

   number = number /10

5. for i=0 to i ≤ array.length

   sum = sum + array[i]

   end for

6. print sum
7. Stop.

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11) Smallest of 3 numbers (a,b,c)

1. Start
2. Read 3 numbers (num1, num2, num3)

   (a, b, c)

3. if a < b & a < c

   print "a is smallest"

4. else if b < c

   print "b is smallest"

5. else

   print "c is smallest"

12) add two numbers without using arithmetic operators

1. Start
2. Read num1, num2
3. declare large-num small-num
4. if (num1 > num2)
       small
       large-num = num1

   else if (num1 < num2)
       Small
       large-num = num2

   else
       Small
       large-num = num1
5. for i=1 to large

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12) add 2 no. without using arithmetic operators

1. start
2. Read num1, num2
3. for i=1 to i ≤ num2
       num1++
4. print num1
5. End.

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13) Reverse a number.

1. start
2. Read number
3. declare reverse = 0
4. while number != 0

   remainder = number % 10

   reverse = reverse * 10 + remainder

   number = number / 10.

5. print reverse
6. Stop.

14) find GCD of 2 given numbers.

1. Start
2. Read num1, num2
3. for i=1 to i= declare i=2, hcf=1
4. while (num1 != 1 && num2 != 1)
        while (num1 % i == 0 && num2 %. i == 0)
                hcf = hcf * i
                num1 = num1 / i
                num2 = num2 / i
        end while
        i++
    end while.
5. print hcf
6. End

---

14) find GCD of 2 given numbers.

1. Start
2. Read num1, num2
3. declare i=2, hcf=1, count=1
4. if num1 < num2
            count = num1
    else
            count=num2
5. for i=2 to i<= count
6. while (num%.i == 0 && num %. i==0)
        hcf = hcf * i
        num1 = num1 / i
        num2 = num2 / i

7. print hcf.

15) Lcm of 2 numbers
1. start
2. Read num1, num2
3. if num1 > num2
      then lcm = num1
4. else
      lcm = num2

9. while (true)
5.   if (lcm % num1 == 0 && lcm % num2 != 0)
7.   print lcm
8.   end if break;
9.   ++ lcm;
10. end while
11. Stop.

15) Lcm of 2 numbers
1. start
2. Read num1, num2
3. if num1 > num2

15) Lcm of 2 given numbers
1. start
2. Read num1, num2
3. if num1 < num2 declare count = 0, i = 2
4. while (count != 1)
5.   for (i=2 to   if ((num1 * i) == (num2 * i))
6.   count = 1
7.   lcm = num1 * i
                            end if
8.
                            i++
9. print lcm.
10. stop

16) Lcm of 2 numbers using Prime factors method

1. Start
2. Read n1, n2
3. Calculate minimum number bet" n1 & n2 (min)
4. intjitializ lcm = 1
5. for i = 2, i ≤ min/2 + 1, to i++
6.   while (n1 %. i == 0 && n2 %. i == 0)
7.   lcm *= i
8.   n1 = n1 / i
9.   n2 = n2 / i;
10.   end while
11. end for
12. lcm = lcm * n1 * n2
13. print lcm
14. stop.

9

17) Palindrome or Not
   1. Start
   2. Read number (n)
   3. declare temp, rem, rev=0
   4. while n != 0
   5.   rem = n % 10
   6.   rev = rev * 10 + rem
   7.   n = n / 10
   8. end while
   9. if (temp == rev)
   10.   then print "Num is palindrome"
   11. else
   12.   print "Num is not palindrome"

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18) print prime factors of given number
   1. Start
   2. Read num,
   3. declare c = 2
   4. while num > 1
   5.   check if n % c == 0
   6.   print c
   7.   n = n / c
   8.   else
   9.   c++
   10. end while

19) Print Even number Series

    1. Start
    2. Read number (n)
    3. for i = 0 to i ≤ n
       print print i
          i = i + 2
    4. End.

Start

Read n

set i = 0

i ≤ n ——— False

True

print i

i = i + 2

End
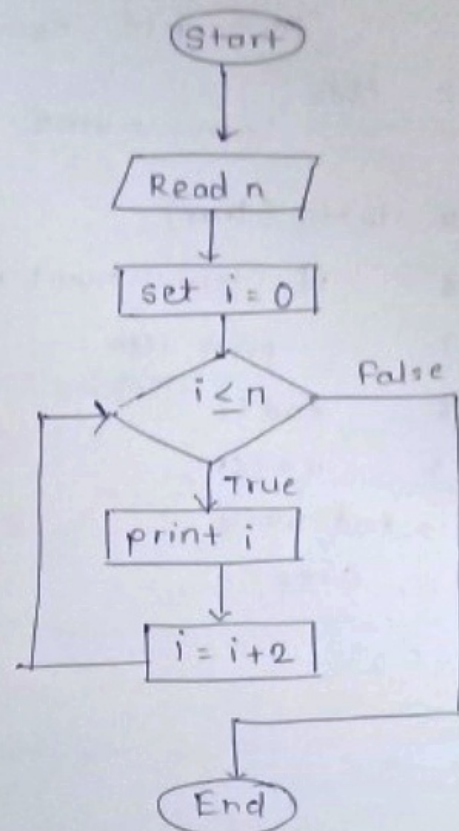
20) Print odd number series.

    1. Start
    2. Read number (n)
    3. for i = 1 to i ≤ n
    4.   print i
    5.   i = i + 2
    6. End.