Assignment: 01

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1. Write a program that takes two number as input and prints their sum.

   Pseudo code:

   PROGRAM SumofTwoNumber:
   Read num1, num2;
   Print num1 + num2;
   END.

2. Write a program that prints all even number from 1 to 100.

   Pseudo code:

   PROGRAM Even**:**
   Read num=1;
   WHILE(num<=100) **DO**
   IF(num%2==0) **THEN**
   Print num;
   End IF
   num=num+1;
   End WHILE
   END.

3. Write a function that checks IF a given year is a leap year or not.

   Pseudo code:

   PROGRAM LeapYear:
   Read year;
   Boolean isLeap = false;

   IF (year % 4 == 0) **THEN**
   IF (year % 100 == 0) **THEN**
   IF (year % 400 == 0) **THEN**
   isLeap = true;
   ELSE
   isLeap = false;
   END IF
   ELSE
   isLeap = true;
   END IF

```
    ELSE
      isLeap = false;
    END IF
    IF (isLeap == true) THEN
      Print "It is a leap year";
    ELSE
      Print "It is not a leap year";
    END IF
END.
```

4. Write a program that converts kilometre per hours to mile per hours.

Pseudocode:

```
PROGRAM Convert:
Read KM;
Print=KM/1.609;
END.
```

5. Write a Pseudocode to check whether a number is buzz number or not.

Pseudo code:

```
PROGRAM Buzz:
Read num;
IF (num%10==7  OR  num%7==0) THEN
Print num ‘is’ bzz;
Else
Print num ‘is’ not buzz,
END IF
END.
```

6. Write a program that ask user for number and prints the multiplication table of that number upto 10.

Pseudo code:

```
PROGRAM Table:
Read num;
count=1;
WHILE(count<=10) DO
Print num*count;
count=count+1;
End for loop;
END.
```

7. Write a program that computers the factorial of a number.

Pseudo code:

```
PROGRAM Factorial:
```

Read num;
Read fact=1;
Initialize count=2;
WHILE(count<=num) **DO**
fact=fact*count;
count=count+1;
End WHILE loop
Print Fact;
END.

8. **Write a function that checks whether a number is prime or not.**

Pseudo code:

```
PROGRAM Prime:
Read num;
Boolean isPrime = true;
count = 2;
   WHILE (count < num) DO
      IF (num % count == 0) THEN
         isPrime = false;
         EXIT WHILE
      END IF
      count = count + 1;
   END WHILE

   IF(isPrime == true) THEN
      Print num " is a prime number";
   ELSE
      Print num " is not a prime number";
   END IF
END.
```

9. Write a program…..?

Pseudo code:

```
Program Triangle:
Read side1, side2, side3;
IF(side1==side2 and side2==side3) THEN
Print Equilateral;
Else IF(side1==side2 or side1==side3 orside2==side3)THEN
Print isosceles;
Else
Print Scalene;
End of IF
END.
```

10. Print the pattern..?

Pseudo code:

```
PROGRAM Pattern:
   Read row = 5;
   count = 1;
   WHILE (count <= row) DO
      count2 = 1;
      WHILE (count2 <= count) DO
         Print "*";
         count2 = count2 + 1;
      END WHILE
      Print newline
      count = count + 1;
   END WHILE // End of outer loop (count)
END.
```

Bonus Question:

Pseudo code:

```
PROGRAM palindrome:
Read input, reminder, quotient;
Read result=0;
quotient=input;
WHILE(quotient!=0) DO
reminder =input%10;
result=result*10+reminder;
quotient=quotient/10;
END WHILE
IF(result==input)THEN
Print palindrome;
ELSE
Print Not palindrome;
END IF
END.
```