Data Types

Level 1

1.

Write a Java program to print an int, a double and a char on screen.

___

2.

Write a program to print the area of a rectangle of sides 2 and 3 units respectively.

___

3.

Write a program to print the product of the numbers 8.2 and 6.

___

4.

Print the ASCII value of the character 'h'.

___

5.

Write a program to assign a value of 100.235 to a double variable and then convert it to int.

___

6.

Write a program to add 3 to the ASCII value of the character 'd' and print the equivalent character.

___

7.

Write a program to add an integer variable having value 5 and a double variable having value 6.2.

8.

Write a program to find the square of the number 3.9.

Operators

1. Length and breadth of a rectangle are 5 and 7 respectively. Write a program to calculate the area and perimeter of the rectangle.
2. Write a program to calculate the perimeter of a triangle having sides of length 2,3 and 5 units.
3. Write a program to convert Fahrenheit into Celsius.

Input by user

1.

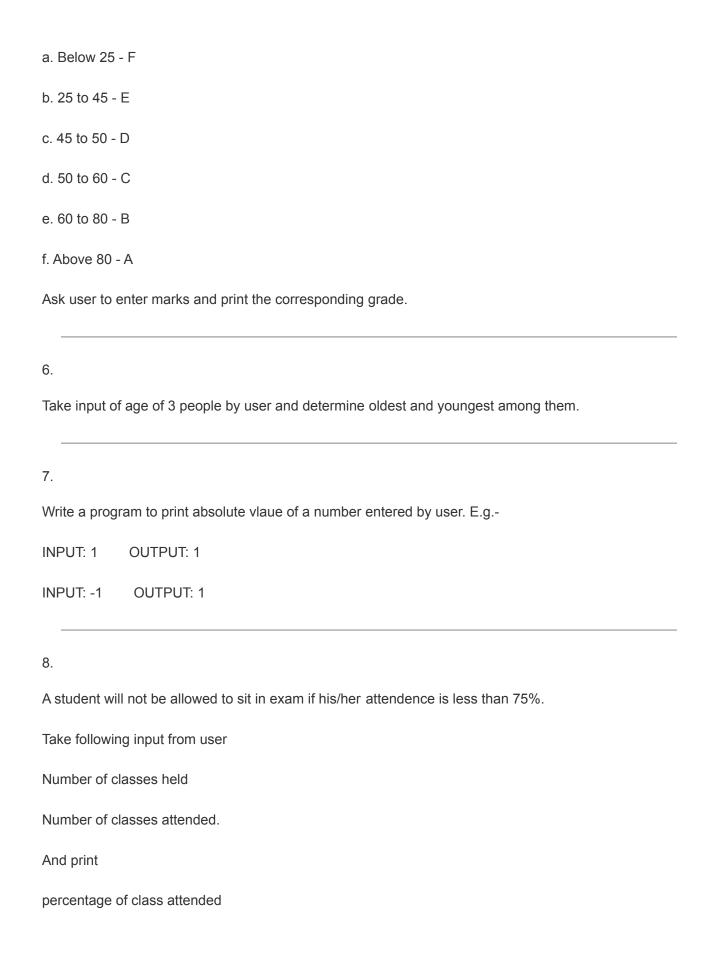Write a program to take two integer inputs from user and print sum and product of them.

2.

Take two integer inputs from user. First calculate the sum of two then product of two. Finally, print the sum and product of both obtained results.

3.

Ask user to give two double input for length and breadth of a rectangle and print area type casted to int.

Conditional Statement

Level 1

1.

Take values of length and breadth of a rectangle from user and check if it is square or not.

2.

Take two int values from user and print greatest among them.

3.

A shop will give discount of 10% if the cost of purchased quantity is more than 1000.

Ask user for quantity

Suppose, one unit will cost 100.

Judge and print total cost for user.

4.

A company decided to give bonus of 5% to employee if his/her year of service is more than 5 years.

Ask user for their salary and year of service and print the net bonus amount.

5.

A school has following rules for grading system:

a. Below 25 - F

b. 25 to 45 - E

c. 45 to 50 - D

d. 50 to 60 - C

e. 60 to 80 - B

f. Above 80 - A

Ask user to enter marks and print the corresponding grade.

6.

Take input of age of 3 people by user and determine oldest and youngest among them.

7.

Write a program to print absolute vlaue of a number entered by user. E.g.-

INPUT: 1   OUTPUT: 1

INPUT: -1   OUTPUT: 1

8.

A student will not be allowed to sit in exam if his/her attendence is less than 75%.

Take following input from user

Number of classes held

Number of classes attended.

And print

percentage of class attended

Is student is allowed to sit in exam or not.

9.

Modify the above question to allow student to sit if he/she has medical cause. Ask user if he/she has medical cause or not ('Y' or 'N') and print accordingly.

10.

If

x = 2

y = 5

z = 0

then find values of the following expressions:

a. x == 2

b. x != 5

c. x != 5 && y >= 5

d. z != 0 || x == 2

e. !(y < 10)

11.

Write a program to check whether a entered character is lowercase (a to z) or uppercase (A to Z).

Level 2

1.

Write a program to check if a year is leap year or not.

If a year is divisible by 4 then it is leap year but if the year is century year like 2000, 1900, 2100 then it must be divisible by 400.

2.

Ask user to enter age, sex (M or F), marital status (Y or N) and then using following rules print their place of service.

if employee is female, then she will work only in urban areas.

if employee is a male and age is in between 20 to 40 then he may work in anywhere

if employee is male and age is in between 40 t0 60 then he will work in urban areas only.

And any other input of age should print "ERROR".

3.

A 4 digit number is entered through keyboard. Write a program to print a new number with digits reversed as of original one. E.g.-

INPUT : 1234   OUTPUT : 4321

INPUT : 5982   OUTPUT : 2895

Loops

Level 1

1.

Take 10 integers from keyboard using loop and print their average value on the screen.

2.

Print the following patterns using loop :

a.

*

**

***

****

b.

  *

 ***

*****

 ***

  *

c.

1010101

 10101

  101

   1

3.

Print multiplication table of 24, 50 and 29 using loop.

4.

Print ASCII values and their equivalent characters. ASCII value vary from 0 to 255.

5.

Factorial of any number n is represented by n! and is equal to 1*2*3*....*(n-1)*n. E.g.-

4! = 1*2*3*4 = 24

3! = 3*2*1 = 6

2! = 2*1 = 2

Also,

1! = 1

0! = 0

Write a Java program to calculate factorial of a number.

6.

Write a program to find greatest common divisor (GCD) or highest common factor (HCF) of given two numbers

---

7.

Take integer inputs from user until he/she presses q (Ask to press q to quit after every integer input). Print average and product of all numbers.

8.

Write an infinite loop.

A inifinte loop never ends. Condition is always true.

Level 2

1.

Take as input a fraction in the form a/b. Convert the same into lowest terms and print. (Lowest terms examples 3/12 = 1/4).

2.

Calculate the sum of digits of a number given by user. E.g.-

INUPT : 123   OUPUT : 6

INUPT : 12345   OUPUT : 15

3.

A three digit number is called Armstrong number if sum of cube of its digit is equal to number itself. E.g.-153 is an Armstrong number because (13)+(53)+(33) = 153.

Write all Armstrong numbers between 100 to 500.

4.

Write a program to print all prime number in between 1 to 100.

5.

Write a program to find prime factor of a number.

If a factor of a number is prime number then it is its prime factor.

6.

Write a program in java to find the sum of the even and odd digits of the number which is given as input.