

Assignment_sheet_2

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

2. 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.

3. 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.

4. 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.

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

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

INPUT: 1 OUTPUT: 1

INPUT: -1 OUTPUT: 1

7. A student will not be allowed to sit in exam if his/her attendance 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.

8. 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.

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

10. 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.

11. 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 to 60 then he will work in urban areas only.
And any other input of age should print "ERROR".

12. 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

13. Write a Java program that keeps a number from the user and generates an integer between 1 and 7 and displays the name of the weekday.

Test Data

Input number: 3

Expected Output :

Wednesday

14. Write a program to accept percentage from the user and display grade according to the following criteria

Marks	Grade
> 90	A
>80 and <=90	B
>=60 and <=80	C
below 60	D

15. Write a java program to accept the cost price of a bike and display the road tax to be paid according to the following criteria.

Cost Price(In Rs)	Tax
> 100000	15%
>50000 and <=100000	10%
<=50000	5%

1. WAP to calculate area of circle

2. WAP to calculate area of rectangle

3. WAP to calculate the percentage of students

4. WAP to exchange value to two variable with third variable and without third variable

// Bitwise ^ operator

5. WAP to exchange value of two variable without using third variable and arithmetic operator

6. WAP to find greater among two number

7. WAP to find greater among three number
8. WAP to check wheather number is even or odd
9. WAP to check wheater number is positive or negative
10. Print number between 1 to 5 in word format
11. Find even odd using switch case
12. Check given character is vowel or not using switch case
13. Program to perform arithmetic operation using switch case
14. WAP to find lowest number among four different number
15. WAP to check given year is a leap year or not
16. W.A.P to convert temperature from Fahrenheit to Celsius and Celsius to Fahrenheit. For given problem you have to take choice from user. If user enter choice 'c' or 'C' then convert Fahrenheit to Celsius. If user enter choice 'f' or 'F' then convert Celsius to Fahrenheit.
17. W.A.P to check the sign of given number.
18. W.A.P to check whether given number is even or odd Without using % operator.
19. W.A.P to check whether the traingle is equilateral, scalene, or isosceles. Hint: - Isosceles triangle: In geometry, an isosceles triangle is a triangle that has two sides of equal length. Equilateral triangle: In geometry, an equilateral triangle is a triangle in which all three sides are equal. Scalene triangle: A scalene triangle is a triangle that has three unequal sides.
20. W.A.P to check whether a charachter is an alphabet or not.
21. Java program to check whether the triangle is valid or not if angles are given. Hint:- The angle property of the triangle says that the sum of all three angles should be equal to 180.
22. Write a Java program to check whether a number is divisible by 5 and 11 or not.
23. Write a Java program to input day number and print week day.
24. Write a Java program to count total number of notes in given amount.
25. Write a Java program to calculate profit or loss.
26. Write a Java program to input marks of five subjects Physics, Chemistry, Biology, Mathematics and Computer. Calculate percentage and grade according to following:
Percentage $\geq 90\%$: Grade A

Percentage \geq 80% : Grade B
Percentage \geq 70% : Grade C
Percentage \geq 60% : Grade D
Percentage \geq 40% : Grade E
Percentage $<$ 40% : Grade F

27. Write a Java program to input basic salary of an employee and calculate its Gross salary according to following: Basic Salary \leq 10000 : HRA = 20%, DA = 80%
Basic Salary \leq 20000 : HRA = 25%, DA = 90%
Basic Salary $>$ 20000 : HRA = 30%, DA = 95%

28. Write a C program to input electricity unit charges and calculate total electricity bill according to the given condition: For first 50 units Rs. 0.50/unit For next 100 units Rs. 0.75/unit For next 100 units Rs. 1.20/unit For unit above 250 Rs. 1.50/unit An additional surcharge of 20% is added to the bill.

29. Write a program to input choice from user. If user enter '+' as choice then calculate addition of 2 number. If Choice ' $>$ ' then check which number is greaterst. If choice is ' $==$ ' then check both number is equal or not.