

PROGRAMS ON JAVA FOR CLASS-IX PROJECT

- 1) WAP to initialize marks secured by a student in four subjects where 100 is full mark for each subject. Then calculate his percentage mark and display his grade on the following basis.

<u>Percentage Mark</u>	<u>Grade</u>
70% or above	A
40% to 69%	B
Below 40%	C

- 2) WAP to initialize principal amount, rate of interest and time in three different variable such that principal and time will be in integer form and rate will be in double form then display the simple interest.
- 3) Write a program to display both area and perimeter of a circle by initializing the radius of the circle in an appropriate variable.

- 4) WAP to initialize Basic Salary of an employee. Then calculate and display his Net Salary on the following basis.

Net Salary = Gross Salary – Provident Fund

Gross Salary = Basic Salary + Dearness Allowance + House Rent Allowance

Dearness Allowance = 30% of Basic Salary

House Rent Allowance = 15% of Basic Salary

Provident Fund = 12% of Basic Salary

- 5) WAP to initialize a number in a variable. Then display the following information

- i) Square root of the number.
- ii) Cube(to the power 3) of the number.
- iii) Unit digit of the number.

Note that a double precision value to be initialized.

- 6) WAP to initialize two integer numbers in two different variables. Then generate a new number by taking the unit digits of both the numbers with a condition that the higher number will be placed in the tenth place and the lower number in the unit place.

For example : 34 & 59 output : 94
 48 & 25 output : 85 etc.

- 7) WAP to initialize the age of a person . Display whether the person is child, teen aged or adult on the following basis.

<u>Age</u>	<u>Category</u>
Upto 12	Child
Between 13 and 17	Teen
Above 17	Adult

- 8) WAP to store the following data in appropriate variable then display those data with appropriate message: Name of the employee, designation , salary, year of service and gender as M for male or F for female.
- 9) WAP to initialize three variables and display the highest and the lowest value with proper message.
- 10) Write a program to display the result of the following equation after initializing values in r, a and x.

$$y = \left| \frac{\pi r^2}{2a + x^2} \right|$$

if else if else based programs

1. WAP to take the aggregate percentage mark of a student and display the grade on following basis.

<u>Percentage mark</u>	<u>Grade</u>
Between 90 and 100	A
Between 80 and 89	B
Between 60 and 79	C
Between 30 and 59	D

Below 30 E

2. WAP to take the age of a person. Display a category on following basis.

<u>Age Group</u>	<u>Category</u>
Below 4	Infant
Between 4 and 12	Child
Between 13 and 17	Teenager
Above 17	Adult

3. WAP to take a month number between 1 and 12 from user. Display a season using Switch Case on following basis.

<u>Month Number</u>	<u>Season</u>
2	Spring
3, 4, 5	Summer
6, 7, 8	Rainy
9	Autumn
10	Dew
11, 12 and 1	Winter

4. WAP to take a character from user. Display whether its an Upper Case alphabet or Lower Case alphabet or a digit or a symbol.

5. WAP to take a character from user. Using Nested If, check whether its an alphabet or not. If alphabet, display whether it's a vowel or consonant.

6. WAP to take the gender of a person as M or F for male and female respectively. Also take the age of the person. Display whether the person is legally eligible to marry or not where legal age of marriage is 21 for male and 18 for female.

7. WAP to take the total amount of purchase made by a customer. Calculate the amount of discount and the final amount to be paid by the customer after deducting discount on following basis.

<u>Total Purchase Amount</u>	<u>Discount</u>
Below 3,000	5% on the purchase amount
Between 3,000 and 6,000	10% on the purchase amount
Between 6001 and 10,000	15% on the purchase amount
Above 10,000	20% on the purchase amount

8. WAP to take name and monthly salary of a person as input. Calculate and display the income tax amount along with the name of that person on the following basis. (Note: Income Tax is calculated on the annual income of a person)

<u>Annual Income</u>	<u>Tax rate</u>
Up to 3,00,000	0% (nil)
Next 2,00,000	5% on the amount that is exceeding 3,00,000
Next 5,00,000	10% on the amount that is exceeding 5,00,000 + 10,000
Above 10,00,000	20% on the amount that is exceeding 10,00,000 + 60,000

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