Activity 9ᵗʰ June:

1)Write a Java program to test a number is positive or negative

2) Take four numbers from the user and print the greatest number

3) Write a Java Program to produce an invoice for the below items

   – Carrots: $2 / lb

   – Onions – $4 / lb

   – Meat – $10 / lb

   a) Ask the customer to how many lbs do they need, and calculate the total

   b) Ask the customer if they want to pay cash or card

      – If Card, add 13% HST to total

      – if Cash, don't add Tax

   c) Display the total amount that customer needs to pay

4)Write a program to check whether a number is divisible by 5 and 11 or not

5. Write a program to check whether a number is even or odd.

6. Write a program to check whether a year is leap year or not.

7. Write a program to input week number and print week day.

8. Write a program to input month number and print month Name.

9. Write a program to count total number of notes in given amount

10. Write a program to input angles of a triangle and check whether triangle is valid or not.

11. Write a program to input all sides of a triangle and check whether triangle is valid or not.

12. Write a program to check whether the triangle is equilateral, isosceles or scalene triangle.

13. Write a program to find all roots of a quadratic equation

14. Write a program to calculate profit or loss

15. Write a program to input marks of five subjects Physics, Chemistry, Biology, Mathematics and Computer. Calculate percentage and grade according to following:

- Percentage >= 90% : Grade A
- Percentage >= 80% : Grade B
- Percentage >= 70% : Grade C
- Percentage >= 60% : Grade D
- Percentage >= 40% : Grade E
- Percentage < 40% : Grade F

16. Write a program to input basic salary of an employee and calculate its Gross salary according to following:

- Basic Salary <= 10000 : HRA = 20%, DA = 80%
- Basic Salary <= 20000 : HRA = 25%, DA = 90%
- Basic Salary > 20000 : HRA = 30%, DA = 95%

17. Write a 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 150 units Rs. 0.75/unit
- For next 250 units Rs. 1.20/unit
- For unit above 250 Rs. 1.50/unit
- An additional surcharge of 20% is added to the bill

18. while purchasing certain items, a discount of 10% is offered if the quantity purchased is more than 100. If quantity and price per item are input through the keyboard, write a program to calculate the total expenses

19. The current year and the year in which the employee joined the organization are entered through the keyboard. If the number of years for which the employee has served the organization is greater than 3 then a bonus of Rs. 2500/- is given to the employee. If the years of service are not greater than 3, then the program should do nothing

20. If his basic salary is less than Rs. 1500, then HRA = 10% of basic salary and DA = 90% of basic salary. If his salary is either equal to or above Rs. 1500, then HRA = Rs. 500 and DA = 98% of basic salary. If the employee's salary is input through the keyboard write a program to find his gross salary

21. The marks obtained by a student in 5 different subjects are input through the keyboard. The student gets a division as per the following rules: Write a program to calculate the division obtained by the student

- Percentage above or equal to 60 - First division
- Percentage between 50 and 59 - Second division
- Percentage between 40 and 49 - Third division
- Percentage less than 40 – Fail

22. A company insures its drivers in the following cases:

- If the driver is married
- If the driver is unmarried, male & above 30 years of age
- If the driver is unmarried, female & above 25 years of age
- 27. Write a program to calculate the salary as per the following table

Gender	Year of Service	Qualifications	Salary
Male	>= 10	Post - Graduate	15000
	>= 10	Graduate	10000
	< 10	Post - Graduate	10000
	< 10	Graduate	7000
Female	>= 10	Post - Graduate	12000
	>= 10	Graduate	9000
	< 10	Post - Graduate	10000
	< 10	Graduate	6000

23. A five-digit number is entered through the keyboard. Write a program to obtain the reversed number and to determine whether the original and reversed numbers are equal or not

24. If the ages of Ram, Shyam and Ajay are input through the keyboard, write a program to determine the youngest of the three

25. Write a program to check whether a triangle is valid or not, when the three angles of the triangle are entered through the keyboard. A triangle is valid if the sum of all the three angles is equal to 180 degrees

26. Find the absolute value of a number entered through the keyboard

27. Given the length and breadth of a rectangle, write a program to find whether the area of the rectangle is greater than its perimeter. For example, the area of the rectangle with length = 5 and breadth = 4 is greater than its perimeter

28. A certain grade of steel is graded according to the following conditions

   i.   Hardness must be greater than 50
   ii. Carbon content must be less than 0.7
   iii. Tensile strength must be greater than 5600

The grades are as follows:

   • Grade is 10 if all three conditions are met
   • Grade is 9 if conditions (i) and (ii) are met
   • Grade is 8 if conditions (ii) and (iii) are met
   • Grade is 7 if conditions (i) and (iii) are met
   • Grade is 6 if only one condition is met
   • Grade is 5 if none of the conditions are met

Write a program, which will require the user to give values of hardness, carbon content and tensile strength of the steel under consideration and output the grade of the steel

29. A library charges a fine for every book returned late. For first 5 days the fine is 50 paise, for 6-10 days fine is one rupee and above 10 days fine is 5 rupees. If you return the book after 30 days your membership will be cancelled. Write a program to accept the number of days the member is late to return the book and display the fine or the appropriate message

30. In a company, worker efficiency is determined on the basis of the time required for a worker to complete a particular job. If the time taken by the worker is between 2 – 3 hours, then the worker is said to be highly efficient. If the time required by the worker is between 3 – 4 hours, then the worker is ordered to improve speed. If the time taken is between 4 – 5 hours, the worker is given training to improve his speed, and if the time taken by the worker is more than 5 hours, then the worker has to leave the company. If the time taken by the worker is input through the keyboard, find the efficiency of the worker

View Solution

31. Write a Java program that accepts three numbers and check All numbers are equal or not

32. Write a Java program that reads an positive integer and count the number of digits

33. Write a java program that accepts three numbers from the user and check if numbers are in "increasing" or "decreasing" order

34. Write a Java program to create a simple calculator

35. Write a Java program to check whether the given integer is a multiple of 5