Assignment 2

Date: 03/03/2022
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1. Write a Java program to print 'Hello' on screen and then print your name on a separate line.
Expected Output :
Hello
Alexandra Abramov

2. Write a Java program to print the sum of two numbers.
Test Data: 74 + 36

3. Write a Java program to divide two numbers and print on the screen.
Test Data : 50/3
Expected Output : 16

4. Write a Java program to print the result of the following operations.
Test Data:
a. -5 + 8 * 6
b. (55+9) % 9
c. 20 + -3*5 / 8
d. 5 + 15 / 3 * 2 - 8 % 3
Expected Output :
43
1
19
13

5. Write a Java program that takes two numbers as input and display the product of two numbers.
Test Data:
Input first number: 25
Input second number: 5
Expected Output :
25 x 5 = 125

6. Write a Java program to print the sum (addition), multiply, subtract, divide and remainder of two numbers.
Test Data:
Input first number: 125
Input second number: 24
Expected Output :
125 + 24 = 149
125 - 24 = 101
125 x 24 = 3000

125 / 24 = 5
125 mod 24 = 5

7. Write a Java program that takes a number as input and prints its multiplication table upto 10.
Test Data:
Input a number: 8
Expected Output :
8 x 1 = 8
8 x 2 = 16
8 x 3 = 24
...
8 x 10 = 80

8. Write a Java program to display the following pattern.
Sample Pattern :

```
    J     a    v      v   a
    J    a a    v    v   a a
 J  J   aaaaa    V V   aaaaa
  JJ   a      a    V   a      a
```

9. Write a Java program to compute the specified expressions and print the output.
Test Data:
((25.5 * 3.5 - 3.5 * 3.5) / (40.5 - 4.5))
Expected Output
2.138888888888889

10. Write a Java program to compute a specified formula.
Specified Formula :
4.0 * (1 - (1.0/3) + (1.0/5) - (1.0/7) + (1.0/9) - (1.0/11))
Expected Output
2.9760461760461765

11. Write a Java program to print the area and perimeter of a circle.
Test Data:
Radius = 7.5
Expected Output
Perimeter is = 47.12388980384689
Area is = 176.71458676442586

12. Write a Java program that takes three numbers as input to calculate and print the average of the numbers.

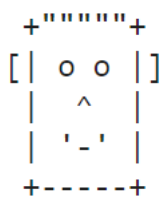
13. Write a Java program to print the area and perimeter of a rectangle.
Test Data:
Width = 5.5 Height = 8.5
Expected Output

Area is 5.6 * 8.5 = 47.60
Perimeter is 2 * (5.6 + 8.5) = 28.20

14. Write a Java program to print an American flag on the screen.
Expected Output

15. Write a Java program to swap two variables.

16. Write a Java program to print a face.
Expected Output



17. Write a Java program to add two binary numbers.
Input Data:
Input first binary number: 10
Input second binary number: 11
Expected Output
Sum of two binary numbers: 101

18. Write a Java program to multiply two binary numbers.
Input Data:
Input the first binary number: 10
Input the second binary number: 11
Expected Output
Product of two binary numbers: 110

19. Write a Java program to convert a decimal number to binary number.
Input Data:
Input a Decimal Number : 5
Expected Output

Binary number is: 101

20. Write a Java program to convert a decimal number to hexadecimal number.
Input Data:
Input a decimal number: 15
Expected Output
Hexadecimal number is : F

21. Write a Java program to convert a decimal number to octal number.
Input Data:
Input a Decimal Number: 15
Expected Output
Octal number is: 17

22. Write a Java program to convert a binary number to decimal number.
Input Data:
Input a binary number: 100
Expected Output
Decimal Number: 4

23. Write a Java program to convert a binary number to hexadecimal number.
Input Data:
Input a Binary Number: 1101
Expected Output
HexaDecimal value: D

24. Write a Java program to convert a binary number to a Octal number.
Input Data:
Input a Binary Number: 111
Expected Output
Octal number: 7

25. Write a Java program to convert a octal number to a decimal number.
Input Data:
Input any octal number: 10
Expected Output
Equivalent decimal number: 8