OOPS Assignment - 1

1. Write a program to read a floating point number and an integer. If the value of the floating point number is greater than 4,14, add ten to integer.
2. Enter two integers as dividend and divisor. If the divisor is greater than zero, divide the dividend by the divisor. Assign their result to an integer variable rem and their quotient to floating point variable quo.
3. Write a program to find the prime factors of a number.
4. Write a program to test if a given number is a power of 2.
5. Write a program to print the Floyd's triangle
   1
   2 3
   4 5 6
   7 8 9 10
   11 12 13 14 15
6. Write a program to read two numbers. Find out whether the first number is a multiple of the second number.
7. Write a program input three numbers, using switch case to display a menu that offers four options- calculate total, calculate average, display the smallest value, and display the largest value.
8. Write a program to display the sin(x) value where x ranges from 0 to 360 degrees in steps of 15.
9. Write a program that accepts current date and the date of birth of the user. Then calculate the age of the user and display it on the screen. Note that the date should be displayed in the dd/mm/yy format.
10. Write a program to display all the numbers from 1 to 100 which are divisible by 3 and not by 7.
11. Write a program to read month of the year as an integer. Display the name of the month.
12. Write a program to read an integer. If it is positive, display the corresponding binary representation of that number.
13. Write a program to print 20 asterisks.
14. Write a program that accepts any number and prints the number of digits in that number.
15. Write a program to calculate electricity bill based on the fallowing information.

Consumption units	Rate of charges
0 -150	₹ 3 per unit
151-350	₹ 100 + ₹ 3.75/unit exceeding 150 units
351-450	₹ 250 + ₹ 4/unit exceeding 350 units
451-600	₹ 300 + ₹ 4.25/unit exceeding 450 units
Above 600	₹ 400+ ₹ 5/unit exceeding 600 units