Simple Problems

Basic:

1. Write a Program that **reads a number from the console** (not necessarily an integer) and converts the number from **inches to centimeters.** (1 inch=2.54cm)
2. Write a program that reads from the console a **number r** and calculates and prints **the area and perimeter of a circle** with **radius r**.

    a. Area = Math.PI * r * r.
    b. Perimeter = 2 * Math.PI * r.

Input and Output

Input	Output
3	Area = 28.2743338823081 Perimeter = 18.8495559215388
4.5	Area = 63.6172512351933 Perimeter = 28.2743338823081

3. Write a Program that reads **degrees on Celsius scale** (°C) and converts them to **degrees on Fahrenheit scale** (°F). Round the result to **2 digits after the decimal point**. (**°F = °C×(9/5)+32)**

4. Write a program for **conversion of money from one currency into another**. It has to support the following currencies: **Rate, USD, EUR, Yuvan**. Use the following fixed currency rates:

Rate	USD	EUR	CNY
100 Rs	1.22	1.27	8.79

5. Find the salary of person whose basic salary is 10000 and add DA as 10% and HRA is 10 %. The taxes deduced in annual salary is 5%. Find his annual income.

If Condition and switch:

1. Write a program that **inputs a password** (one line with random text) and checks if the input **matches** the phrase "**s3cr3t!P@ssw0rd**". If it matches, print "**Welcome**", otherwise "**Wrong password!**".

Sample Input and Output

Input	Output
qwerty	Wrong password!
s3cr3t!P@ssw0rd	Welcome
s3cr3t!p@ss	Wrong password!

2. Write a program that **inputs an integer** and checks if it is **below 100**, **between 100 and 200** or **over 200**. Print the appropriate message as in the examples below.

Sample Input and Output

Input	Output
95	Less than 100
120	Between 100 and 200
210	Greater than 200

3. Write a program that **inputs the speed** (decimal number) and prints **speed information**. For speed **up to 10** (inclusive), print "**slow**". For speed **over 10** and **up to 50**, print "**average**". For speed **over 50 and up to 150**, print "**fast**". For speed **over 150 and up to 1000**, print "**ultra fast**". For higher speed, print "**extremely fast**".

Sample Input and Output

Input	Output
8	slow
49.5	average
126	fast
160	ultra fast
3500	extremely fast

4. Show the salary of a person by asking name of month, number of leaves taken in that month. Calculate total salary 500 Rs/ Day.

5. Get a character by asking user to enter it and find whether it is a vowel or not. Show “It is a vowel” or “It is not a vowel”.

Looping Assignments

1. Find X^Y by asking user to enter X and Y.
2. Find the sum of square of given odd values range 1- 99.
3. Show the mathematics table of given number from 1 to 20.
    a. Ex : 2*1=2 2*2=4 2*3=6….
4. Write a program to print the following

    1

    22

    333

    4444

    55555

    666666

5. Write a program to check given number is prime or not.
    Input : 3
    Output : It is prime number