OOPS With Java
Assignment-2

Write C programs to carry out the following by reading the relevant data:

1. Calculate the area of a rectangle given its length and width.

2. Convert a temperature from Celsius to Fahrenheit using the formula:

F = (C * 9/5) + 32.

3. Calculate the area of a circle given its radius using the formula:

A = π * r^2.

4. Compute the hypotenuse of a right triangle using the Pythagorean theorem:

c = sqrt(a^2 + b^2).

5. Calculate the simple interest on an investment using the formula:

 A = P * T * R / 100;

6. Calculate the compound interest on an investment using the formula:

A = P * (1 + r/n)^(n*t).

7. Determine the volume of a sphere given its radius using the formula:

V = (4/3) * π * r^3.

8. Convert a distance from kilometers to miles using the formula: miles = kilometers * 0.621371.

9. Calculate the sum of the first n natural numbers using the formula:

 sum = (n * (n + 1)) / 2.

10. Compute the area of a triangle given the lengths of its three sides using Heron's formula.

The formula is as follows:

s = (a + b + c) / 2
A = sqrt(s * (s - a) * (s - b) * (s - c))

where:

a, b, and c are the lengths of the triangle's sides.

s is the semi perimeter (half of the perimeter) of the triangle.

A is the area of the triangle.