

-----enter the value of integer variable and print it on scree

```
#include <stdio.h>
```

```
int main() {
```

```
    int num;
```

```
    printf("Enter an integer value: ");
```

```
    scanf("%d", &num);
```

```
    printf("You entered: %d\n", num);
```

```
    return 0;
```

```
}
```

-----input number and print its multiplication table upto 10

```
#include <stdio.h>
```

```
int main() {
```

```
    int num;
```

```
    printf("Enter a number: ");
```

```
    scanf("%d", &num);
```

```
    printf("Multiplication table of %d:\n", num);
```

```
    for (int i = 1; i <= 10; i++) {
```

```
        printf("%d x %d = %d\n", num, i, num * i);
```

```

    }

    return 0;
}

-----input 2 number and print its square,cube

#include <stdio.h>

int main() {
    int num1, num2;

    printf("Enter the first number: ");
    scanf("%d", &num1);

    printf("Enter the second number: ");
    scanf("%d", &num2);

    // Calculate and print the square and cube of the first number
    printf("Square of %d: %d\n", num1, num1 * num1);
    printf("Cube of %d: %d\n", num1, num1 * num1 * num1);

    // Calculate and print the square and cube of the second number
    printf("Square of %d: %d\n", num2, num2 * num2);
    printf("Cube of %d: %d\n", num2, num2 * num2 * num2);

    return 0;
}

```

-----input 2 number and print add,sub,mul,div

```
#include <stdio.h>
```

```
int main() {
```

```
    // Variables to store input numbers
```

```
    double num1, num2;
```

```
    // Input first number
```

```
    printf("Enter the first number: ");
```

```
    scanf("%lf", &num1);
```

```
    // Input second number
```

```
    printf("Enter the second number: ");
```

```
    scanf("%lf", &num2);
```

```
    // Addition
```

```
    double add = num1 + num2;
```

```
    printf("Addition: %.2lf\n", add);
```

```
    // Subtraction
```

```
    double sub = num1 - num2;
```

```
    printf("Subtraction: %.2lf\n", sub);
```

```
    // Multiplication
```

```
    double mul = num1 * num2;
```

```
    printf("Multiplication: %.2lf\n", mul);
```

```
    // Division
```

```
    if (num2 != 0) {
```

```
    double div = num1 / num2;
    printf("Division: %.2lf\n", div);
} else {
    printf("Division by zero is not allowed.\n");
}

return 0;
}
```

-----verify the formula of simple interest

```
#include <stdio.h>
```

```
int main() {
    // Variables to store input values
    double principal, rate, time;

    // Input principal amount
    printf("Enter the principal amount: ");
    scanf("%lf", &principal);

    // Input rate of interest
    printf("Enter the rate of interest (in percentage): ");
    scanf("%lf", &rate);

    // Input time period
    printf("Enter the time period (in years): ");
    scanf("%lf", &time);
```

```
// Calculate simple interest
double simpleInterest = (principal * rate * time) / 100;

// Display the result
printf("Simple Interest: %.2lf\n", simpleInterest);

return 0;
}
```

-----input ruppes and conveert into dollar

```
#include <stdio.h>
```

```
int main() {
    // Exchange rate from INR to USD
    double exchangeRate = 75.0;

    // Variable to store input amount in rupees
    double amountINR;

    // Input amount in rupees
    printf("Enter the amount in Indian Rupees: ");
    scanf("%lf", &amountINR);

    // Convert rupees to dollars
    double amountUSD = amountINR / exchangeRate;

    // Display the result
```

```
printf("Amount in USD: %.2lf\n", amountUSD);

return 0;
}

----- input number of chairs and its total cost and print cost of each chair

#include <stdio.h>

int main() {
    // Variables to store input values
    int numChairs;
    double totalCost;

    // Input number of chairs
    printf("Enter the number of chairs: ");
    scanf("%d", &numChairs);

    // Input total cost
    printf("Enter the total cost: ");
    scanf("%lf", &totalCost);

    // Calculate cost of each chair
    double costPerChair = totalCost / numChairs;

    // Display the result
    printf("Cost of each chair: %.2lf\n", costPerChair);

    return 0;
}
```

----- verify the formula $L = (c+d) * (g+h)$

```
#include <stdio.h>
```

```
int main() {
```

```
    // Variables to store input values
```

```
    double c, d, g, h;
```

```
    // Input values for c, d, g, and h
```

```
    printf("Enter the values for c, d, g, and h: ");
```

```
    scanf("%lf %lf %lf %lf", &c, &d, &g, &h);
```

```
    // Calculate both sides of the equation
```

```
    double left_side = (c + d) * (g + h);
```

```
    double right_side = c * g + c * h + d * g + d * h;
```

```
    // Display the results
```

```
    printf("Left side (L): %.2lf\n", left_side);
```

```
    printf("Right side: %.2lf\n", right_side);
```

```
    // Verify if both sides are equal
```

```
    if (left_side == right_side) {
```

```
        printf("The formula is verified!  $L = (c + d) * (g + h)$ \n");
```

```
    } else {
```

```
        printf("The formula does not hold for the given values.\n");
```

```
    }
```

```
    return 0;
```

```
}
```

----- verify the formula $x = ((k-4) * (a^4)) / 100$

```
#include <stdio.h>
```

```
int main() {
```

```
    // Variables to store input values
```

```
    double k, a;
```

```
    // Input values for k and a
```

```
    printf("Enter the values for k and a: ");
```

```
    scanf("%lf %lf", &k, &a);
```

```
    // Calculate both sides of the equation
```

```
    double left_side = ((k - 4) * (a * 4)) / 100;
```

```
    double right_side = (k - 4) * (a / 25);
```

```
    // Display the results
```

```
    printf("Left side (x): %.2lf\n", left_side);
```

```
    printf("Right side: %.2lf\n", right_side);
```

```
    // Verify if both sides are equal
```

```
    if (left_side == right_side) {
```

```
        printf("The formula is verified!  $x = ((k - 4) * (a^4)) / 100$ \n");
```

```
    } else {
```

```
        printf("The formula does not hold for the given values.\n");
```

```
    }
```



```
    return 0;
}
```

----- verify the formula $s = ((4 * a + c) - 2 * a * b) / 100$

```
#include <stdio.h>
```

```
int main() {
    // Variables to store input values
    double a, b, c;

    // Input values for a, b, and c
    printf("Enter the values for a, b, and c: ");
    scanf("%lf %lf %lf", &a, &b, &c);

    // Calculate both sides of the equation
    double left_side = ((4 * a + c) - 2 * a * b) / 100;
    double right_side = ((4 * a + c) - (2 * a * b)) / 100;

    // Display the results
    printf("Left side (s): %.2lf\n", left_side);
    printf("Right side: %.2lf\n", right_side);

    // Verify if both sides are equal
    if (left_side == right_side) {
        printf("The formula is verified!  $s = ((4 * a + c) - 2 * a * b) / 100$ \n");
    } else {
        printf("The formula does not hold for the given values.\n");
    }
}
```

```
    return 0;
}
```

----- verify the formula of $a = p \cdot (1 + (r/100)/n)^n - p$

```
#include <stdio.h>
```

```
#include <math.h>
```

```
int main() {
```

```
    // Variables to store input values
```

```
    double p, r, n;
```

```
    // Input values for p, r, and n
```

```
    printf("Enter the values for p, r, and n: ");
```

```
    scanf("%lf %lf %lf", &p, &r, &n);
```

```
    // Calculate both sides of the equation
```

```
    double left_side = p * pow((1 + (r / 100) / n), n) - p;
```

```
    double right_side = p * (pow((1 + (r / 100) / n), n) - 1);
```

```
    // Display the results
```

```
    printf("Left side (a): %.2lf\n", left_side);
```

```
    printf("Right side: %.2lf\n", right_side);
```

```
    // Verify if both sides are equal
```

```
    if (left_side == right_side) {
```

```
        printf("The formula is verified!  $a = p \cdot (1 + (r / 100) / n)^n - p$ \n");
```

```
    } else {
```

```
        printf("The formula does not hold for the given values.\n");
    }

    return 0;
}
```

----- verify $t = ((v+s) + (1-m)*1)$

```
#include <stdio.h>
```

```
int main() {
    // Variables to store input values
    double v, s, m;

    // Input values for v, s, and m
    printf("Enter the values for v, s, and m: ");
    scanf("%lf %lf %lf", &v, &s, &m);

    // Calculate both sides of the equation
    double left_side = ((v + s) + (1 - m) * 1);
    double right_side = v + s + (1 - m);

    // Display the results
    printf("Left side (t): %.2lf\n", left_side);
    printf("Right side: %.2lf\n", right_side);
}
```

```

// Verify if both sides are equal
if (left_side == right_side) {
    printf("The formula is verified! t = ((v + s) + (1 - m) * 1)\n");
} else {
    printf("The formula does not hold for the given values.\n");
}

return 0;
}

```

----- calculate area of circle

```

#include <stdio.h>
#include <math.h>

int main() {
    // Define the value of pi ( $\pi$ )
    const double pi = 3.14159265359;

    // Variable to store the radius of the circle
    double radius;

    // Input the radius from the user
    printf("Enter the radius of the circle: ");
    scanf("%lf", &radius);

    // Calculate the area of the circle
    double area = pi * pow(radius, 2);
}

```

```
// Display the result
printf("Area of the circle: %.2lf\n", area);

return 0;
}
```

----- calculate area of triangle

```
#include <stdio.h>

int main() {
    // Variables to store base and height of the triangle
    double base, height;

    // Input the base and height from the user
    printf("Enter the base of the triangle: ");
    scanf("%lf", &base);

    printf("Enter the height of the triangle: ");
    scanf("%lf", &height);

    // Calculate the area of the triangle
    double area = 0.5 * base * height;

    // Display the result
    printf("Area of the triangle: %.2lf\n", area);
}
```

```
    return 0;
}
```

----- verify $c = (a+b) * (a+b)$

```
#include <stdio.h>
```

```
int main() {
    // Variables to store input values
    double a, b;

    // Input values for a and b
    printf("Enter the values for a and b: ");
    scanf("%lf %lf", &a, &b);

    // Calculate both sides of the equation
    double left_side = (a + b) * (a + b);
    double right_side = (a + b) * (a + b);

    // Display the results
    printf("Left side (c): %.2lf\n", left_side);
    printf("Right side: %.2lf\n", right_side);

    // Verify if both sides are equal
    if (left_side == right_side) {
        printf("The formula is verified!  $c = (a + b) * (a + b)$ \n");
    } else {
        printf("The formula does not hold for the given values.\n");
    }
}
```

```
}
```

```
return 0;
```

```
}
```