***Tutorial 7***

1. #include <stdio.h>

int main() {

int number1, number2, sum, difference;

printf("Enter two numbers: ");

scanf("%d %d", &number1, &number2);

sum = number1 + number2;

difference = number1 - number2;

printf("The sum of the two numbers is %d\n", sum);

printf("The difference of the two numbers is %d\n", difference);

return 0;

}

2. #include <stdio.h>

void sum\_and\_difference(int x, int y) {

int sum = x + y;

int difference = x - y;

printf("The sum of %d and %d is %d\n", x, y, sum);

printf("The difference of %d and %d is %d\n", x, y, difference);

}

int main() {

int x, y;

printf("Enter two numbers: ");

scanf("%d %d", &x, &y);

sum\_and\_difference(x, y);

return 0;

}

3. #include <stdio.h>

int product(int x, int y) {

int product = x \* y;

return product;

}

int main() {

int a, b;

printf("Enter two numbers: ");

scanf("%d %d", &a, &b);

int product = product(a, b);

printf("The product of %d and %d is %d\n", a, b, product);

return 0;

}

4. #include <stdio.h>

int quotient(int dividend, int divisor) {

if (divisor == 0) {

printf("Division by zero error.");

return -1;

}

return dividend / divisor;

}

int main() {

int dividend, divisor;

printf("Enter the dividend: ");

scanf("%d", &dividend);

printf("Enter the divisor: ");

scanf("%d", &divisor);

int quotient = quotient(dividend, divisor);

printf("The quotient is: %d\n", quotient);

return 0;

}

5. #include <stdio.h>

// Function to read 2 numbers and display the sum

void sum\_of\_numbers(int number1, int number2) {

int sum = number1 + number2;

printf("The sum of %d and %d is %d\n", number1, number2, sum);

}

int main() {

// Call the sum\_of\_numbers function several times

sum\_of\_numbers(10, 20);

sum\_of\_numbers(30, 40);

sum\_of\_numbers(50, 60);

return 0;

}

6. #include <stdio.h>

int sum\_difference\_product(int x, int y) {

int sum = x + y;

int difference = x - y;

int product = x \* y;

// Using a single printf statement to print the sum, difference and product

printf("The sum, difference and product of %d and %d are %d, %d and %d.\n", x, y, sum, difference, product);

return 0;

}

int main() {

int x, y;

// Prompt the user to enter two integers

printf("Enter two integers: ");

scanf("%d %d", &x, &y);

// Call the `sum\_difference\_product` function to calculate the sum, difference and product

sum\_difference\_product(x, y);

return 0;

}

7. #include <stdio.h>

double product(int a, float b) {

return (double)a \* b;

}

int main() {

int x;

float y;

double product\_value;

printf("Enter an integer: ");

scanf("%d", &x);

printf("Enter a float: ");

scanf("%f", &y);

product\_value = product(x, y);

printf("The product of %d and %f is %lf.\n", x, y, product\_value);

return 0;

}

8.

a. double hypotenuse(double side1, double side2);

b. int smallest(int x, int y, int z);

c. void instructions();

d. float intToFloat(int number);