1.

#include <stdio.h>

void calculateSumAndDifference() {

int num1, num2;

printf("Enter two numbers: ");

scanf("%d %d", &num1, &num2);

int sum = num1 + num2;

int difference = num1 - num2;

printf("Sum: %d\n", sum);

printf("Difference: %d\n", difference);

}

int main() {

calculateSumAndDifference();

return 0;

}

2.

#include <stdio.h>

void calculateSumAndDifference(int num1, int num2) {

int sum = num1 + num2;

int difference = num1 - num2;

printf("Sum: %d\n", sum);

printf("Difference: %d\n", difference);

}

int main() {

int num1, num2;

printf("Enter two numbers: ");

scanf("%d %d", &num1, &num2);

calculateSumAndDifference(num1, num2);

return 0;

}

3.

#include <stdio.h>

int calculateProduct(int num1, int num2) {

return num1 \* num2;

}

int main() {

int num1, num2;

printf("Enter two numbers: ");

scanf("%d %d", &num1, &num2);

int product = calculateProduct(num1, num2);

printf("Product: %d\n", product);

return 0;

}

4.

#include <stdio.h>

float calculateQuotient(int num1, int num2) {

if (num2 == 0) {

printf("Error: Division by zero.\n");

return 0;

}

return (float)num1 / num2;

}

int main() {

int num1, num2;

printf("Enter two numbers: ");

scanf("%d %d", &num1, &num2);

float quotient = calculateQuotient(num1, num2);

printf("Quotient: %.2f\n", quotient);

return 0;

}

5.

#include <stdio.h>

void displaySum() {

int num1, num2;

printf("Enter two numbers: ");

scanf("%d %d", &num1, &num2);

int sum = num1 + num2;

printf("Sum: %d\n", sum);

}

int main() {

int i;

for (i = 0; i < 3; i++) {

displaySum();

}

return 0;

}

6.

#include <stdio.h>

void calculateAndDisplay(int num1, int num2) {

int sum = num1 + num2;

int difference = num1 - num2;

int product = num1 \* num2;

printf("Sum: %d, Difference: %d, Product: %d\n", sum, difference, product);

}

int main() {

int num1, num2;

printf("Enter two numbers: ");

scanf("%d %d", &num1, &num2);

calculateAndDisplay(num1, num2);

return 0;

}

7.

#include <stdio.h>

double calculateProduct(int num1, float num2) {

return num1 \* num2;

}

int main() {

int num1;

float num2;

printf("Enter an integer and a float value: ");

scanf("%d %f", &num1, &num2);

double product = calculateProduct(num1, num2);

printf("Product: %.2lf\n", product);

return 0;

}

8. Give the function header for each of the following functions.

a. Function `hypotenuse` that takes two double-precision floating-point arguments, `side1` and

`side2`, and returns a double-precision floating-point result.

double hypotenuse(double side1, double side2);

b. Function `smallest` that takes three integers, `x`, `y`, `z`, and returns an integer.

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

c. Function `instructions` that does not receive any arguments and does not return a value.

void instructions(void);

d. Function `intToFloat` that takes an integer argument, `number`, and returns a floating-point result.

float intToFloat(int number);