Function(ফাংশন)

1(1).Function এর মাধ্যমে যোগ।

1(2).Function এর সাহায্যে যোগ।

2. Function এর মাধ্যমে একটি পূর্নসংখ্যার বর্গ।

3. Function এর মাধ্যমে একটি ত্রিভুজ এর ক্ষেত্রফল নির্নয়।

4(1) - x to the power y using define function.

4(2) - x to the power y using define function.

5(1) - x to the power y using library function.

5(2) - x to the power y without library function.

6(1) - Passing array without using function.

6(2) - Passing array using function.

7. Finding maximum value from an array using function.

8. Passing string to function.

9. Factorial using recursion.

10. Add two number using function.

11. Some function for understanding the logic.

12. Check a global variable output using function.

13. Check the value after passing a array to function.

1(1). Function এর মাধ্যমে যোগ।

Output:

Enter two numbers = 10 5

The sum is = 15

#include <stdio.h>

int main()

{

int sum(int num1, int num2);

int num1, num2;

printf("Enter two numbers = ");

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

//int result = sum(num1, num2);

printf("The sum is = %d\n", sum(num1, num2)); //result

}

int sum(int num1, int num2)

{

return num1 + num2;

}

1(2). Function এর সাহায্যে যোগ।

Output:

The sum is = 18

The sum is = 60

The sum is = 10

#include <stdio.h>

int main()

{

int sum(int a, int b, int c);

int sub(int a, int b);

printf("The sum is = %d\n", sum(5, 6, 7));

printf("The sum is = %d\n", sum(10, 20, 30));

printf("The sum is = %d\n", sub(20, 10));

}

int sum(int a, int b, int c)

{

return a + b + c;

}

int sub(int a, int b)

{

return a - b;

}

2. Function এর মাধ্যমে একটি পূর্নসংখ্যার বর্গ।

Output:

Enter a number = 5

The square is = 25

#include <stdio.h>

int main()

{

int square(int num);

int num;

printf("Enter a number = ");

scanf("%d", &num);

printf("The square is = %d\n", square(num));

}

int square(int num)

{

return num \* num;

}

3. Function এর মাধ্যমে একটি ত্রিভুজ এর ক্ষেত্রফল নির্নয়।

#include <stdio.h>

int main()

{

float trianglearea(float base, float height);

float base, height;

printf("Enter base and height = ");

scanf("%f %f", &base, &height);

printf("The area is = %.2f\n", trianglearea(base, height));

}

float trianglearea(float base, float height)

{

return 0.5 \* base \* height;

}

Output:

Enter baseand height = 7 5

The area is = 17.50

4(1)- x to the power y using define function.

Output:

Enter baseand exponent = 2 3

The result is = 8.00

#include <stdio.h>

int main()

{

double calculatepower(double base, double exponent);

double base, exponent;

printf("Enter base and exponent = ");

scanf("%lf %lf", &base, &exponent);

printf("The result is = %.2lf\n", calculatepower(base,exponent));

}

double calculatepower(double base, double exponent)

{

double i, result = 1;

for (i = 1; i <= exponent; i++)

{

result = result \* base;

}

return result;

}

4(2)- x to the power y using define function.

Output:

The result is = 8.00

The result is = 16.00

The result is = 25.00

#include <stdio.h>

int main()

{

double calculatepower(double base, double exponent);

calculatepower(2, 3);

calculatepower(4, 2);

calculatepower(5, 2);

}

double calculatepower(double base, double exponent)

{

double i, result = 1;

for (i = 1; i <= exponent; i++)

{

result = result \* base;

}

printf("The result is = %.2lf\n", result);

}

5(1). x to the power y using library function.

Output:

Enter baseand exponent = 5 2

The result is = 25.00

#include <stdio.h>

int main()

{

double base, exponent, result = 1;

int i;

printf("Enter base and exponent = ");

scanf("%lf %lf", &base, &exponent);

for (i = 1; i <= exponent; i++)

{

result = result \* base;

}

printf("The result is = %.2lf\n", result);

}

5(2). x to the power y without library function.

Output:

Enter baseand exponent = 5 2

The result is = 25.00

#include <stdio.h>

#include <math.h>

int main()

{

double base, exponent;

printf("Enter base and exponent = ");

scanf("%lf %lf", &base, &exponent);

double result = pow(base, exponent);

printf("The result is = %.2lf\n", result);

}

6(1) - Passing array without using function.

#include <stdio.h>

int main()

{

int num[] = { 10, 20, 30, 40, 50 }, i;

for (i = 0; i < 5; i++)

{

printf("%d ", num[i]);

}

}

Output:

10 20 30 40 50

6(2)- Passing array using function.

#include <stdio.h>

int main()

{

void display(int num[]);

int num[] = { 10, 20, 30, 40, 50 };

display(num);

}

void display(int num[])

{

int i;

for (i = 0; i < 5; i++) {

printf("%d ", num[i]);

}

}

Output:

10 20 30 40 50

7. Finding maximum value from an array using function.

Output:

Maximum = 50

#include <stdio.h>

int main()

{

int maximum(int num[]);

int num[] = { 10, 20, 30, 40, 50 };

printf("Maximum = %d\n", maximum(num));

}

int maximum(int num[])

{

int i;

int max = num[0];

for (i = 1; i < 5; i++)

{

if (num[i] > max)

{

max = num[i];

}

}

return max;

}

#include <stdio.h>

int main()

{

int n, i, num[100];

printf("How many numbers = ");

scanf("%d", &n);

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

scanf("%d", &num[i]);

}

int max = num[0];

for (i = 1; i < n; i++)

{

if (num[i] > max)

max = num[i];

}

printf("The maximum number is = %d\n", max);

}

Output:

How many numbers = 5

12 23 34 45 56

The maximum number is = 56

#include <stdio.h>

int main()

{

int num[] = { 2, 4, 5, 6, 1, 8, 9 };

int i, position;

int max = num[0];

for (i = 1; i < 7; i++)

{

if (num[i] > max)

{

max = num[i];

position = i;

}

}

printf("The maximum number is = %d\n"

"and the position is %d\n", max, position);

}

Output:

The maximum number is = 9

and the position is 6

8. Passing string to function.

Output:

k

i

b

r

i

a

#include <stdio.h>

int main()

{

void show(char ch[]);

char ch[] = "kibria";

show(ch);

}

void show(char ch[])

{

int i = 0;

while (ch[i] != '\0')

{

printf("%c\n", ch[i]);

i++;

}

}

9. Factorial using recursion.

Output:

Enter the number = 4

Factorial is = 24

#include <stdio.h>

int main()

{

int fact(int n);

int n;

printf("Enter the number = ");

scanf("%d", &n);

printf("Factorial is = %d\n", fact(n));

}

int fact(int n)

{

if (n == 1) return 1;

else return n \* fact(n - 1);

}

10. Add two number using function.

Output:

The sum is = 5.50

#include <stdio.h>

int main()

{

double add(double a, double b);

double a = 2.8, b = 2.7, c;

c = add(a, b);

printf("The sum is = %.2lf\n", c);

}

double add(double a, double b)

{

double sum = a + b;

return sum;

}

11. Some function for understanding the logic.

Output:

10 20 200

#include <stdio.h>

int main()

{

int testfunction(int x);

int x = 10, y = 20, z = 30;

z = testfunction(x);

printf("%d %d %d\n", x, y, z);

}

int testfunction(int x)

{

int y = x;

x = 2 \* y;

return (x \* y);

}

12. Check a global variable output using function.

Output:

3.140000

3.141600

#include <stdio.h>

double pi = 3.14;

int main()

{

void myfunction();

printf("%lf\n", pi);

myfunction();

printf("%lf\n", pi);

}

void myfunction()

{

pi = 3.1416;

}

13. Check the value after passing a array to function.

Output:

1

100

#include <stdio.h>

int main()

{

void testfunction(int num[]);

int num[] = { 1, 2, 3, 4, 5 };

printf("%d\n", num[0]);

testfunction(num);

printf("%d\n", num[0]);

}

void testfunction(int num[])

{

num[0] = 100;

}

/\*ফাংশনের মধ্যে কোনো অ্যারে পাস করালে ওই অ্যারের আলাদা কোনো কপি তৈরি হয় না।\*/