

C LANGUAGE TUTORIAL 05

Answers

1. #include <stdio.h>

#include <stdlib.h>

int main()

{

double num1, num2;

printf("Enter two numbers: ");

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

printf("1. +\n");

printf("2. -\n");

printf("3. *\n");

printf("4. /\n");

printf("Please enter your choice: ");

int choice;

scanf("%d", &choice);

double result;

```
switch (choice) {  
    case 1:  
        result = num1 + num2;  
        printf("Result: %.2lf\n", result);  
        break;  
    case 2:  
        result = num1 - num2;  
        printf("Result: %.2lf\n", result);  
        break;  
    case 3:  
        result = num1 * num2;  
        printf("Result: %.2lf\n", result);  
        break;  
    case 4:  
        if (num2 != 0) {  
            result = num1 / num2;  
            printf("Result: %.2lf\n", result);  
        } else {  
            printf("Error: Division by zero is not allowed.\n");  
        }  
        break;  
    default:  
        printf("Invalid choice.\n");  
}
```

```
    return 0;
}

2(a). #include <stdio.h>
#include <stdlib.h>

int main()
{
    int numbers[10];
    int countOdd = 0;
    int countEven = 0;

    printf("Enter 10 numbers:\n");

    for (int i = 0; i < 10; i++) {
        scanf("%d", &numbers[i]);

        if (numbers[i] % 2 == 0) {
            countEven++;
        } else {
            countOdd++;
        }
    }

    printf("Total count of odd numbers: %d\n", countOdd);
```

```
    printf("Total count of even numbers: %d\n", countEven);  
    return 0;  
}
```

(b). #include <stdio.h>

#include <stdlib.h>

int main()

{

int number;

int countOdd = 0;

int countEven = 0;

printf("Enter a series of numbers (terminate with -99):\n");

while (1) {

scanf("%d", &number);

if (number == -99) {

break;

}

if (number % 2 == 0) {

countEven++;

```
    } else {  
        countOdd++;  
    }  
}  
  
printf("Total count of odd numbers: %d\n", countOdd);  
printf("Total count of even numbers: %d\n", countEven);  
return 0;  
}
```

3(a). #include <stdio.h>

#include <stdlib.h>

int main()

{

int numbers[10];

int countOdd = 0;

int countEven = 0;

int i = 0;

printf("Enter 10 numbers:\n");

do {

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

```
    if (numbers[i] % 2 == 0) {  
        countEven++;  
    } else {  
        countOdd++;  
    }  
  
    i++;  
} while (i < 10);  
  
printf("Total count of odd numbers: %d\n", countOdd);  
printf("Total count of even numbers: %d\n", countEven);  
return 0;  
}
```

(b). #include <stdio.h>

#include <stdlib.h>

int main()

{

int number;

int countOdd = 0;

int countEven = 0;

```

printf("Enter a series of numbers (terminate with -99):\n");

do {
    scanf("%d", &number);

    if (number != -99) {
        if (number % 2 == 0) {
            countEven++;
        } else {
            countOdd++;
        }
    }
} while (number != -99);

printf("Total count of odd numbers: %d\n", countOdd);
printf("Total count of even numbers: %d\n", countEven);
return 0;
}

```

4(a). #include <stdio.h>

#include <stdlib.h>

```
int main()
{
    int numbers[10];
    int sum = 0;
    int count = 0;
    double average;

    printf("Enter 10 numbers:\n");

    for (int i = 0; i < 10; i++) {
        scanf("%d", &numbers[i]);
        sum += numbers[i];
        count++;
    }

    average = (double) sum / count;

    printf("Average value: %.2lf\n", average);
    return 0;
}
```


(b). #include <stdio.h>

#include <stdlib.h>

int main()

{

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

for (int j = 1; j <= i; j++) {

printf("*");

}

printf("\n");

}

return 0;

}