
1- Write a program to calculate the sum of even numbers from 1 to 10.

اكتب برنامجًا لحساب مجموع الأعداد الزوجية من 1 إلى 10.

Output

```
Sum of even numbers: 30
```

Solution

```c
// www.gammal.tech

#include <stdio.h>

int main() {
    int sum = 0;
    for (int i = 2; i <= 10; i += 2) {
        sum += i;
    }
    printf("Sum of even numbers: %d\n", sum);
    return 0;
}
```

2- Write a program to calculate the sum of odd numbers from 1 to 15.

اكتب برنامجًا لحساب مجموع الأعداد الفردية من 1 إلى 15.

Output

```
Sum of odd numbers: 64
```

Solution

```c
// www.gammal.tech

#include <stdio.h>

int main() {
    int sum = 0;
    for (int i = 1; i <= 15; i += 2) {
        sum += i;
    }
    printf("Sum of odd numbers: %d\n", sum);
    return 0;
}
```

3- Write a program to calculate the sum of both even and odd numbers from

اكتب برنامجًا لحساب مجموع الأعداد الزوجية والفردية

Output

```
Sum of even numbers: 110
Sum of odd numbers: 100
```

Solution

```c
// www.gammal.tech

#include <stdio.h>

int main() {
    int sum_even = 0, sum_odd = 0;
    for (int i = 1; i <= 20; i++) {
        if (i % 2 == 0) {
            sum_even += i;
        } else {
            sum_odd += i;
        }
    }
    printf("Sum of even numbers: %d\n", sum_even);
    printf("Sum of odd numbers: %d\n", sum_odd);
    return 0;
}
```

4- Write a program to find the sum of even numbers up to a user-defined

اكتب برنامجًا لإيجاد مجموع الأعداد الزوجية حتى عدد محدد من قبل المستخدم

Input

```
Enter the limit: 17
```

Output

```
Sum of even numbers: 72
```

Solution

```c
// www.gammal.tech

#include <stdio.h>

int main() {
    int limit, sum = 0;
    printf("Enter the limit: ");
    scanf("%d", &limit);

    for (int i = 2; i <= limit; i += 2) {
        sum += i;
    }
    printf("Sum of even numbers: %d\n", sum);
    return 0;
}
```

5- Write a program to find the sum of odd numbers up to a user-defined

اكتب برنامجًا لإيجاد مجموع الأعداد الفردية حتى رقم محدد من قبل المستخدم

Input

```
Enter the limit: 18
```

Output

```
Sum of odd numbers: 81
```

Solution

```c
// www.gammal.tech

#include <stdio.h>

int main() {
    int limit, sum = 0;
    printf("Enter the limit: ");
    scanf("%d", &limit);

    for (int i = 1; i <= limit; i += 2) {
        sum += i;
    }
    printf("Sum of odd numbers: %d\n", sum);
    return 0;
}
```

6- Write a program to calculate the sum of even and odd numbers using functions.

اكتب برنامجًا لحساب مجموع الأعداد الزوجية والفردية باستخدام functions.

Input

```
Enter the limit: 30
```

Output

```
Sum of even numbers: 240
Sum of odd numbers: 225
```

Solution

```c
// www.gammal.tech

#include <stdio.h>

void calculateSum(int limit, int *evenSum, int *oddSum) {
    for (int i = 1; i <= limit; i++) {
        if (i % 2 == 0) {
            *evenSum += i;
        } else {
            *oddSum += i;
        }
    }
}

int main() {
    int limit, sum_even = 0, sum_odd = 0;
    printf("Enter the limit: ");
    scanf("%d", &limit);

    calculateSum(limit, &sum_even, &sum_odd);

    printf("Sum of even numbers: %d\n", sum_even);
    printf("Sum of odd numbers: %d\n", sum_odd);
    return 0;
}
```

7- Write a program to calculate the sum of even and odd numbers from 1 to 15 using a while loop.

اكتب برنامجًا لحساب مجموع الأعداد الزوجية والفردية من 1 إلى 15 باستخدام حلقة while.

Output

```
Sum of even numbers: 56
Sum of odd numbers: 64
```

Solution

```c
// www.gammal.tech

#include <stdio.h>

int main() {
    int i = 1, limit = 15, sum_even = 0, sum_odd = 0;

    while (i <= limit) {
        if (i % 2 == 0) {
            sum_even += i;
        } else {
            sum_odd += i;
        }
        i++;
    }

    printf("Sum of even numbers: %d\n", sum_even);
    printf("Sum of odd numbers: %d\n", sum_odd);
    return 0;
}
```

8- Write a program to calculate the sum of even and odd numbers from 1 to 20 using a do-while loop.

اكتب برنامجًا لحساب مجموع الأعداد الزوجية والفردية من 1 إلى 20 باستخدام حلقة do-while.

Output

```
Sum of even numbers: 110
Sum of odd numbers: 100
```

Solution

```c
// www.gammal.tech

#include <stdio.h>

int main() {
    int i = 1, limit = 20, sum_even = 0, sum_odd = 0;

    do {
        if (i % 2 == 0) {
            sum_even += i;
        } else {
            sum_odd += i;
        }
        i++;
    } while (i <= limit);

    printf("Sum of even numbers: %d\n", sum_even);
    printf("Sum of odd numbers: %d\n", sum_odd);
    return 0;
}
```

9- Write a program to calculate the sum of even and odd numbers up to a user-defined limit using functions.

اكتب برنامجًا لحساب مجموع الأعداد الزوجية والفردية حتى حد محدد من قبل المستخدم باستخدام functions.

Input

```
Enter the limit: 20
```

Output

```
Sum of even numbers: 110
Sum of odd numbers: 100
```

Solution

```c
// www.gammal.tech

#include <stdio.h>

void calculateSum(int limit, int *evenSum, int *oddSum) {
    for (int i = 1; i <= limit; i++) {
        if (i % 2 == 0) {
            *evenSum += i;
        } else {
            *oddSum += i;
        }
    }
}

int main() {
    int limit, sum_even = 0, sum_odd = 0;
    printf("Enter the limit: ");
    scanf("%d", &limit);

    calculateSum(limit, &sum_even, &sum_odd);

    printf("Sum of even numbers: %d\n", sum_even);
    printf("Sum of odd numbers: %d\n", sum_odd);
    return 0;
}
```

10- Write a program to store even and odd numbers in separate arrays and calculate their sums.

اكتب برنامجًا لتخزين الأعداد الزوجية والفردية في array منفصلة وحساب مجموعها.

Output

```
Sum of even numbers: 30
Sum of odd numbers: 25
```

Solution

```c
// www.gammal.tech

#include <stdio.h>

int main() {
    int numbers[] = {1, 2, 3, 4, 5, 6, 7, 8, 9, 10};
    int evenSum = 0, oddSum = 0;

    for (int i = 0; i < sizeof(numbers) / sizeof(numbers[0]); i++) {
        if (numbers[i] % 2 == 0) {
            evenSum += numbers[i];
        } else {
            oddSum += numbers[i];
        }
    }

    printf("Sum of even numbers: %d\n", evenSum);
    printf("Sum of odd numbers: %d\n", oddSum);
    return 0;
}
```
