Digit Operations without using Loop

Q1: Write a program that checks whether the last digit of the number is even or odd.(والعدد من أربع منازل)
Input Example: 2398
Output Example: 8 is Even
Answer: The first digit is 8, which is even. Therefore, the output will be "EVEN".

```c
#include<stdio.h>

int main() {
    int X;

    // قراءة الرقم من المستخدم //
    printf("Enter a 4-digit number: ");
    scanf("%d", &X);

    // الحصول على آخر رقم (الآحاد) //
    int last_digit = X % 10;

    // للتحقق إذا كان الرقم الأخير زوجي أم فردي //
    if (last_digit % 2 == 0) {
        printf("%d is Even\n", last_digit);
    } else {
        printf("%d is Odd\n", last_digit);
    }

    return 0;
}
```

Q2: Write a program that checks whether the second to last digit of the number is even or odd.(والعدد من أربع منازل)
Input Example: 2398
Output Example: 9 is Odd
Answer: The first digit is 9, which is odd. Therefore, the output will be "Odd".

```c
int main() {
    int num = 2398;
    num=num/10;  // بتصير قيمتها 239
    int second_last_digit = num % 10;   // Get the second to last digit

    if (second_last_digit % 2 == 0)
        printf("%d is Even\n", second_last_digit);   // Print the second to last digit and if it's even
    else
        printf("%d is Odd\n", second_last_digit);   // Print the second to last digit and if it's odd

    return 0;
}
```

Q3: Write a program that checks whether the second digit of the number is even or odd.(والعدد من أربع منازل)

Input Example: 2398

Output Example: 3 is Odd

Answer: The first digit is 3, which is odd. Therefore, the output will be "Odd".

```c
#include <stdio.h>

int main() {
    int num = 2398;
    num=num/100; // بتصير قيمتها 23
    int second_digit = num % 10;   // Get the secon

    if (second_digit % 2 == 0)
        printf("%d is Even\n", second_digit);   // 
    else
        printf("%d is Odd\n", second_digit);   // P

    return 0;
}
```

Q4: Write a program that checks whether the first digit of the number is even or odd.(والعدد من أربع منازل)

Input Example: 2398

Output Example:2 is Odd

Answer: The first digit is 2, which is even. Therefore, the output will be "even".

```c
int main() {
    int num = 2398;
    num=num/1000; // بتصير قيمتها 2

    int first_digit = num % 10;

    if (first_digit % 2 == 0)
        printf("%d is Even\n", first_digit);
    else
        printf("%d is Odd\n", first_digit);

    return 0;
}
```

Q5: Write a C program to calculate and print the product of the last digit and the second to last digit. (والعدد من أربع منازل).
Input Example: 2398
Output Example:72
Answer: The last digit is 8 and the second to last digit is 9. Therefore, the output will be 9*8=72.

```c
#include <stdio.h>

int main() {
    int num = 2398;

    int last_digit = num % 10;  // Get the last digit
    num/=10; // num =239
    int second_last_digit = num% 10;  // Get the second to last digit

    int product = last_digit * second_last_digit;  // Calculate the product

    printf("The product of the last digit and the second to last digit is: %d\n", product);

    return 0;
}
```

Q6:Write a C program to calculate and print the product of the first digit and the third digit.(والعدد من أربع منازل)
Input Example: 2398
Output Example:18
Answer: The first digit is 2 and the third digit is 9. Therefore, the output will be 9*2=18.

```c
int main() {
    int num;

    printf("Enter a 4-digit number: ");
    scanf("%d", &num);

    // Extract the first and third digits
    int first_digit = num / 1000;  // First digit
    int third_digit = (num / 100) % 10;  // Third digit

    // Calculate the product
    int product = first_digit * third_digit;

    // Print the result
    printf("The product of the first digit and third digit is: %d\n", product);

    return 0;
}
```

Q7:Write a C program to calculate and print the sum of the first digit and the last digit (والعدد من أربع منازل)
Input Example: 2398
Output Example:10
Answer: The first digit is 2 and the last digit is 8. Therefore, the output will be 8+2=10.

```c
int main() {
    int num;

    printf("Enter a 4-digit number: ");
    scanf("%d", &num);

    // Extract the first and last digits
    int first_digit = num / 1000;  // First digit
    int last_digit = num % 10;  // Last digit

    // Calculate the sum
    int sum = first_digit + last_digit;

    // Print the result
    printf("The sum of the first digit and last digit is: %d\n", sum);

    return 0;
}
```

Q 8 :Write a C program to check if the first digit and last digit are both even or both odd. (والعدد من أربع منازل)
Input Example: 2398
Output Example: Both Even
Answer: The first digit is 2 and the last digit is 8. Therefore, the output will be Both Even.

```c
int main() {
    int num;

    printf("Enter a 4-digit number: ");
    scanf("%d", &num);

    int first_digit = num / 1000;  // First digit
    int last_digit = num % 10;  // Last digit

    // Check if both digits are even or odd
    if (first_digit % 2 == 0 && last_digit % 2 == 0) {
        printf("Both Even\n");
    } else if (first_digit % 2 != 0 && last_digit % 2 != 0) {
        printf("Both Odd\n");
    } else {
        printf("One Even and One Odd\n");
    }

    return 0;
}
```

Q 9 :Check if the first digit is greater than 5, then check if it's even or odd
(والعدد من أربع منازل) .
Input Example: 2398
Output Example:
Even
Answer: The first digit is 2 is not greater than 5 then will print nothing , and it even so will print Even.

```c
#include <stdio.h>

int main() {
    int num;

    printf("Enter a 4-digit number: ");
    scanf("%d", &num);

    int first_digit = num / 1000; // Get the first digit

    if (first_digit > 5) {
        printf("GREATER\n");
    }

        if (first_digit % 2 == 0)
            printf("EVEN\n");
        else
            printf("ODD\n");


    return 0;
}
```

Q 10 :Write a C program to check whether the sum of the digits is even or odd.
(والعدد من أربع منازل) .
Input Example: 2398
Output Example: Even
Answer: 2+3+9+8=22 so it's even

```c
#include <stdio.h>

int main() {
    int num;

    printf("Enter a 4-digit number: ");
    scanf("%d", &num);
    int first_digit = num / 1000;    // First digit
    int second_digit = (num / 100) % 10;   // Second digit
    int third_digit = (num / 10) % 10;   // Third digit
    int fourth_digit = num % 10;   // Fourth digit

    // Calculate the sum of the digits
    int sum = first_digit + second_digit + third_digit + fourth_digit;

    // Check if the sum is even or odd
    if (sum % 2 == 0) {
        printf("Even\n");
    } else {
        printf("Odd\n");
    }
```