WEEK:03

DECISION MAKING AND BRANCHING – IF, IF….ELSE, NESTED IF….ELSE, IF….ELSE IF, SWITCH-CASE

WEEK:03 01

ROLL NO:240801161

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Status	Finished
Started	Monday, 23 December 2024, 5:33 PM
Completed	Saturday, 26 October 2024, 2:44 PM
Duration	58 days 2 hours

SAME DIGIT

Problem Statement:

Write a program to read two integer values and print true if both the numbers end with the same digit, otherwise print false.

Example: If 698 and 768 are given, program should print true as they both end with 8.

Sample Input 1

25 53

Sample Output 1

false

Sample Input 2

27 77

Sample Output 2

true

PROGRAM:

Answer: (penalty regime: 0 %)

```c
#include <stdio.h>
int main()
{
    int a,b;

    scanf("%d %d",&a,&b);
    int c,d;
    c = a % 10;
    d = b % 10;
    if (c == d){
        printf("true");
    }
    else{
        printf("false");
    }
    return 0;
}
```

OUTPUT:

	Input	Expected	Got	
✓	25 53	false	false	✓
✓	27 77	true	true	✓

Passed all tests! ✓

QUESTION:2

INTRO TO CONDITIONAL STATEMENTS

Problem Statement:

In this challenge, we're getting started with conditional statements**.**

Task

Given an integer, n, perform the following conditional actions:

• If n is odd, print Weird

• If n is even and in the inclusive range of 2 to 5, print Not Weird

• If n is even and in the inclusive range of 6 to 20, print Weird

• If n is even and greater than 20, print Not Weird

Complete the stub code provided in your editor to print whether or not n is weird.

Input Format

A single line containing a positive integer, n.

Constraints

• 1 < n < 100

Output Format

Print Weird if the number is weird; otherwise, print Not Weird.

Sample Input 0

3

Sample Output 0

Weird

PROGRAM:

Answer: (penalty regime: 0 %)

```c
#include <stdio.h>
int main()
{
    int a;
    scanf("%d",&a);
    if (a%2 != 0)
    {
        printf("Weird\n");
    }
    else
    if (a>=2 && a<=5)
    {
        printf("Not Weird\n");
    }
    else
    if (a>=6 && a<=20)
    {
        printf("weird\n");
    }
    else
    if (a>20)
    {
        printf("Not Weird\n");
    }



    return 0;
}
```

OUTPUT:

	Input	Expected	Got	
✓	3	Weird	Weird	✓
✓	24	Not Weird	Not Weird	✓

Passed all tests! ✓

QUESTION:3

PYTHAGOREAN TRIPLES

Problem Statement:

Three numbers form a Pythagorean triple if the sum of squares of two numbers is equal to the square of the third.

For example, 3, 5 and 4 form a Pythagorean triple, since 3*3 + 4*4 = 25 = 5*5

You are given three integers, a, b, and c. They need not be given in increasing order. If they form a Pythagorean triple, then print "yes", otherwise, print "no". Please note that the output message is in small letters.

Sample Input 1

3

5

4

Sample Output 1

yes

PROGRAM:

Answer: (penalty regime: 0 %)

```c
#include <stdio.h>
int main()
{
    int a,b,c;
    scanf ("%d %d %d",&a,&b,&c);
    if ( a*a + b*b == c*c ||
         b*b + c*c == a*a||
         c*c + a*a == b*b )
    {
    printf("yes");
    }
    else {
        printf ("no");
    }
    return 0;
}
```

OUTPUT:

	Input	Expected	Got	
✓	3 5 4	yes	yes	✓
✓	5 8 2	no	no	✓

Passed all tests! ✓