Week 3 – 1:

--Decision Making and Branching – if, if...else and nested if...else, if...else if, Switch-case

ROLL NO.:241501225

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Started	Monday, 23 December 2024, 5:33 PM
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Q1) 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

Code:

Answer: (penalty regime: 0 %)

```c
#include<stdio.h>
int main()
{
    int a,b;
    scanf("%d %d",&a,&b);
    if(a%10==b%10)
    {
        printf("true");
    }
    else
    {
        printf("false");
    }
}
```

OUTPUT:

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

Passed all tests! ✓

Q2) 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

Sample Input 1

24

Sample Output 1

Not Weird

Code:

Answer: (penalty regime: 0 %)

```c
#include<stdio.h>
int main()
{
    int n;
    scanf("%d ",&n);
    if(n%2==0 && n>=2 && n<=5)
    {

        printf("Not Weird");
    }
    else if((n%2==0) && (n>=6 && n<=20))
    {
        printf("Weird");
    }
    else if(n%2==0 && n>20)
    {
        printf("Not Weird");
    }
    else
    {
        printf("Weird");
    }
}
```

OUTPUT:

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

Passed all tests! ✓

Q3) 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

Sample Input 2

5

8

2

Sample Output 2

no

Code:

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)
  {
      printf("yes");
  }
  else if(b*b == c*c+a*a)
  {
      printf("yes");
  }
  else if(c*c == a*a+b*b)
  {
      printf("yes");
  }
  else
  {
      printf("no");
  }
}
```

OUTPUT:

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

Passed all tests! ✓