

Week 3 – 1:

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

ROLL NO.:241501219

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Status	Finished
Started	Monday, 23 December 2024, 5:33 PM
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Duration	55 days 19 hours

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 %)

```
1 #include<stdio.h>
2 int main()
3 {
4     int a,b;
5     scanf("%d %d",&a,&b);
6     if(a%10==b%10)
7     {
8         printf("true");
9     }
10    else
11    {
12        printf("false");
13    }
14 }
```

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 %)

```
1 #include<stdio.h>
2 int main()
3 {
4     int n;
5     scanf("%d",&n);
6     if(n%2==0 && n>=2 && n<=5)
7     {
8
9         printf("Not Weird");
10    }
11    else if((n%2==0) && (n>=6 && n<=20))
12    {
13        printf("Weird");
14    }
15    else if(n%2==0 && n>20)
16    {
17        printf("Not Weird");
18    }
19    else
20    {
21        printf("Weird");
22    }
23 }
```

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 $3^2 + 4^2 = 25 = 5^2$

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 %)

```
1 #include<stdio.h>
2 int main()
3 {
4     int a,b,c;
5     scanf("%d %d %d",&a,&b,&c);
6     if(a*a == b*b+c*c)
7     {
8         printf("yes");
9     }
10    else if(b*b == c*c+a*a)
11    {
12        printf("yes");
13    }
14    else if(c*c == a*a+b*b)
15    {
16        printf("yes");
17    }
18    else
19    {
20        printf("no");
21    }
22 }
```

OUTPUT:

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

Passed all tests! ✓