

Week 3 – 1:

--Coding-C-Language Features-Optional.

ROLL NO.:240801158

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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:

<b>Status</b>	Finished
<b>Started</b>	Monday, 23 December 2024, 5:33 PM
<b>Completed</b>	Thursday, 24 October 2024, 9:20 AM
<b>Duration</b>	60 days 8 hours

Question 1  
Correct  
Marked out of 3.00  
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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

**Answer:** (penalty regime: 0 %)

```
1 #include <stdio.h>
2 int main(){
3     int num1,num2;
4     scanf("%d %d",&num1,&num2);
5     int lastDigit1 =num1 %10;
6     int lastDigit2 =num2 % 10;
7     if (lastDigit1 ==lastDigit2) {
8         printf("true\n");
9     } else {
10        printf("false\n");
11    }
12    return 0;
13 }
```

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

Code:

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

Code:

```
1 #include <stdio.h>
2 int main(){
3     int a,b,c;
4     //int ab = a*a+b*b;
5     scanf("%d %d %d",&a,&b,&c);
6     // int ab = a*a+(b*b);
7     if (a>=b && a>=c){
8         int ab = b*b + (c*c);
9         if (ab == a*a){
10             printf("yes");
11         }
12         else{
13             printf("no");
14         }
15     }
16     else if(b>=a && b>=c){
17         int ab = a*a+(c*c);
18         if (ab == b*b){
19             printf("yes");
20         }
21         else{
22             printf("no");
23         }
24     }
25     else if(c>=a && c>=b){
26         int ab = a*a+(b*b);
27         if (ab == c*c){
28             printf("yes");
29         }
30         else{
31             printf("no");
32         }
33         // printf("yes");
34     }
35     else{
36         printf("no");
37     }
38     return 0;
39 }
40 }
```

OUTPUT:

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

Passed all tests! ✓