

# Week-03-01

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## 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:

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

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

Passed all tests! ✓

## 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:

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

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

Passed all tests! ✓

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

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

### Program:

```
1 #include <stdio.h>
2
3 int main(){
4     int a,b,c;
5     scanf("%d %d %d",&a,&b,&c);
6     if (a*a + b*b == c*c || a*a + c*c == b*b || b*b + c*c == a*a)
7         printf("yes");
8     else
9         printf("no");
10 }
```

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

Passed all tests! ✓