Type of Triangle

02 February 2025 04:31 PM

Type of Triangle

HackerRank

Write a query identifying the *type* of each record in the **TRIANGLES** table using its three side lengths. Output one of the following statements for each record in the table:

- **Equilateral**: It's a triangle with 3 sides of equal length.
- **Isosceles**: It's a triangle with 2 sides of equal length.
- **Scalene**: It's a triangle with 3 sides of differing lengths.
- **Not A Triangle**: The given values of *A*, *B*, and *C* don't form a triangle.

Input Format

The **TRIANGLES** table is described as follows:

Column	Type
A	Integer
B	Integer
C	Integer

Each row in the table denotes the lengths of each of a triangle's three sides.

Sample Input

A	B	C
20	20	23
20	20	20
20	21	22
13	14	30

Sample Output

```
Isosceles
Equilateral
Scalene
Not A Triangle
```

Explanation

Values in the tuple $(20, 20, 23)$ form an Isosceles triangle, because $A \equiv B$.
Values in the tuple $(20, 20, 20)$ form an Equilateral triangle, because $A \equiv B \equiv C$. Values in the tuple $(20, 21, 22)$ form a Scalene triangle, because $A \neq B \neq C$.

1/2

Values in the tuple $(13, 14, 30)$ cannot form a triangle because the combined value of sides A and B is not larger than that of side C.

2/2

```sql
/*
Enter your query here.
*/
SELECT
    CASE
        WHEN a+b<=c OR b+c<=a OR c+a<=b THEN "Not A Triangle"
        WHEN a=b and b=c THEN "Equilateral"
        WHEN a=b OR b=c OR a=c THEN "Isosceles"
        ELSE "Scalene"
    END AS type_of_triangle
FROM triangles;
```