

Exercise 2: Finding the Type of Triangle

In this exercise, you will implement class-based inheritance using the two constructor functions `Shape` and `Triangle`.

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Problem Statement

In this exercise, two constructor functions, `Shape` and `Triangle` are declared. You need to implement class-based inheritance such that the class `Triangle` inherits prototype properties from the `Shape` class.

You have to implement the following tasks:

Task 1

- Pass the parameters `name` and `sides` to `Shape` and initialize them.
- Define the function `displayName` on the prototype of `Shape`. The function should return the `name` property.
- Next, you need to initialize the `Triangle` constructor function such that it gets all the `Shape` properties initialized for it and also takes in and initializes the additional properties: `a`, `b` and `c` that denote the sides of a triangle.
- After that, you need to implement class-based inheritance such that `Triangle` inherits the prototype properties/methods from the `Shape` class.

Task 2

- You also need to define the `triangleType` function on the prototype of `Triangle`. The function should compare the sides `a`, `b` and `c` to return:
- `Equilateral` if all three sides are equal.
- `Isosceles` if two sides are equal.
- `Scalene` if none of the sides are equal.

Note: Please use the same spellings as mentioned above for everything or the test cases might not pass.

Sample Input

The following functions will be tested:

```
displayName()  
triangleType(3,5,4)  
triangleType(3,3,4)  
triangleType(3,3,3)
```

Sample Output

```
Triangle  
Scalene  
Isosceles  
Equilateral
```

Note: The solution to this exercise is available in the code widget below. However, it'll be good practice to solve this problem yourself first. Good luck!

```
function Shape(){  
  
}  
  
function Triangle(){
```



}

