[10 marks] A triangle can be classified by the lengths of its sides. Given three lengths, it is possible that the triangle could be equilateral (all sides have equal length), isosceles (exactly two sides have equal length) or scalene (all three sides have different lengths). In addition, it is possible that three lengths do not form a valid triangle. For example, lengths 1, 2 and 3 cannot be used to form a triangle with sides of the indicated lengths because there is one side that is at least as long as the sum of the other two sides.

Create a Python program for classifying triangles. Your program should prompt the user for three lengths and either indicate that the lengths do not form a valid triangle, or if the triangle is valid, the type of triangle (equilateral, isosceles or scalene). Your program should continue reading groups of three values from the user and classifying them until all three entered values are 0.

Use the following lines to create your program. Some lines may not be required for a correct solution. Lines may be used multiple times.

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1: a = 0
2: a = int(input("Enter the length of side 1: "))
3: b = 0
4: b = int(input("Enter the length of side 2: "))
5: c = 0
6: c = int(input("Enter the length of side 3: "))
7: elif a == b or b == c or a == c:
8: elif a == b and b == c and a == c:
9: else:
12: else a != b and a != c and b != c:
13: else a != b or a != c or b != c:
14: if a + b <= c and a + c <= b and b + c <= a:
15: if a + b <= c or a + c <= b or b + c <= a:
16: if a + b >= c and a + c >= b and b + c >= a:
17: if a + b >= c or a + c >= b or b + c >= a:
18: if a == b and b == c:
19: if a == b or b == c:
23: print("That isn't a valid triangle.")
24: print("That's a scalene triangle.")
25: print("That's an equilateral triangle.")
26: print("That's an isoceles triangle.")
27: while a != 0 or b != 0 or c != 0:
28: while a != 0 and b != 0 and c != 0:
```