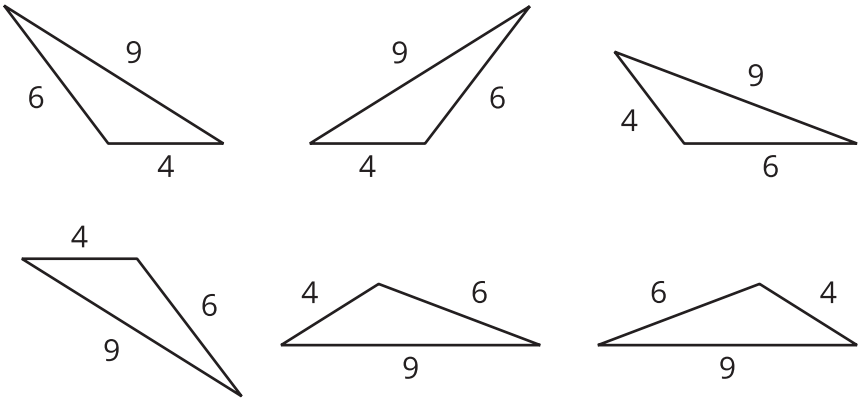
Triangles with 3 Common Measures

Let's contrast triangles.

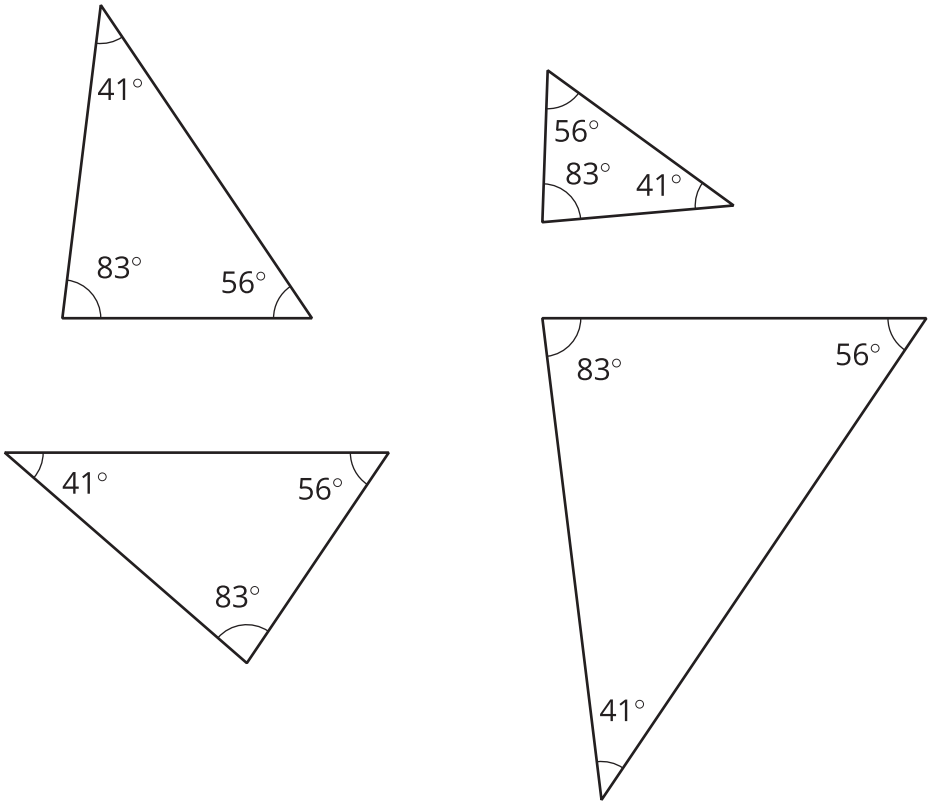
8.1 3 Sides; 3 Angles

Examine each set of triangles. What do you notice? What is the same about the triangles in the set? What is different?

Set 1:



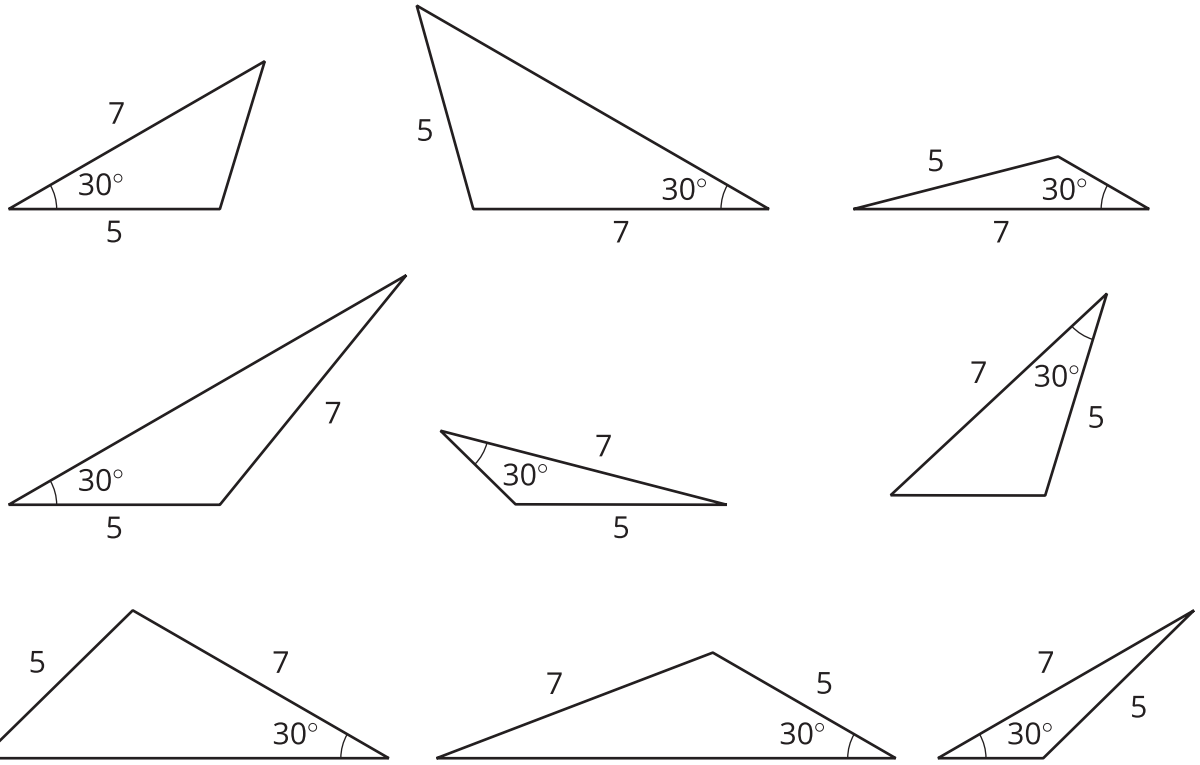
Set 2:



CC BY NC Illustrative Mathematics, based on IM 6–8 Math, CC BY Open Up Resources.

8.2 2 Sides and 1 Angle

Examine this set of triangles.

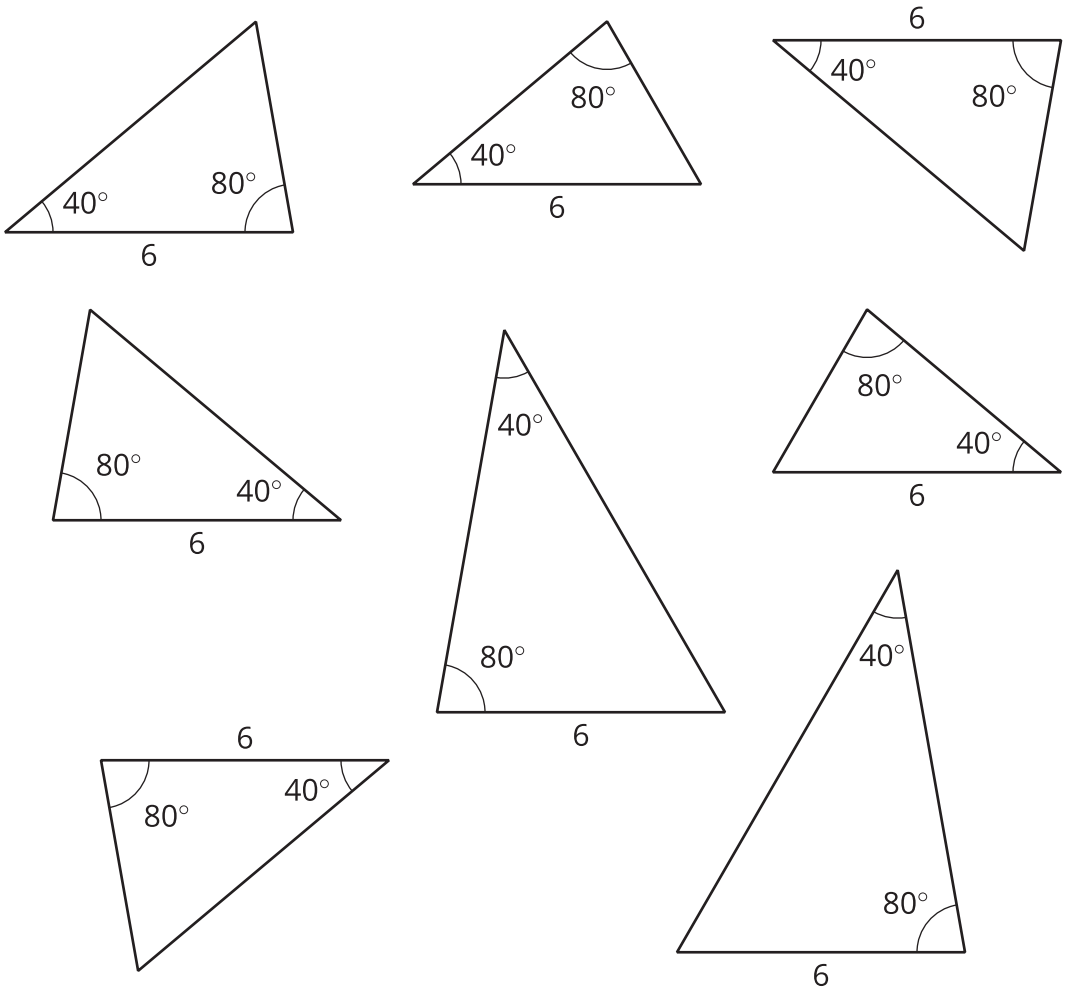


1. What is the same about the triangles in the set? What is different?

2. How many different triangles are there? Explain or show your reasoning.

8.3 2 Angles and 1 Side

Examine this set of triangles.

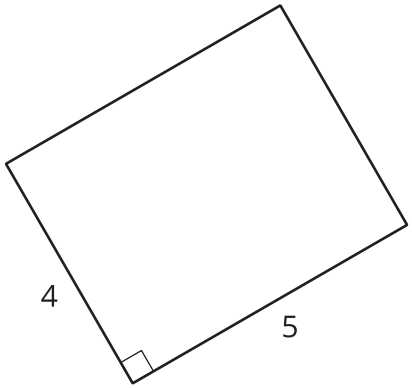


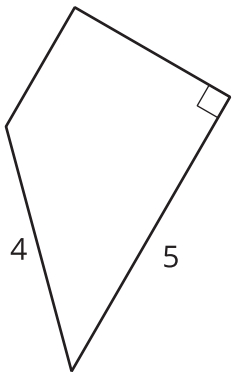
1. What is the same about the triangles in the set? What is different?

2. How many different triangles are there? Explain or show your reasoning.

Lesson 8 Summary

Both of these quadrilaterals have a right angle and side lengths 4 and 5:





However, in one case, the right angle is *between* the two given side lengths, and in the other, it is not.

If we create two triangles with three equal measures, but these measures are not next to each other in the same order, that usually means that the triangles are different. Here is an example:

