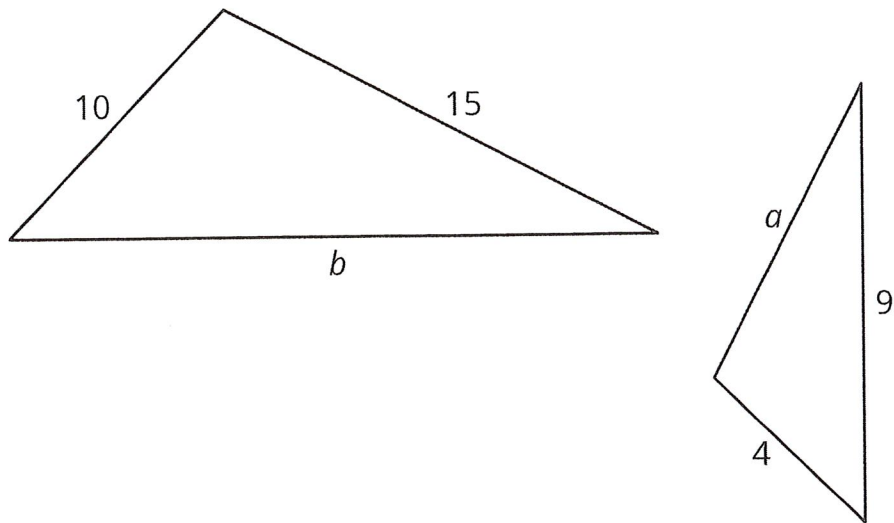


## Lesson 9 Practice Problems

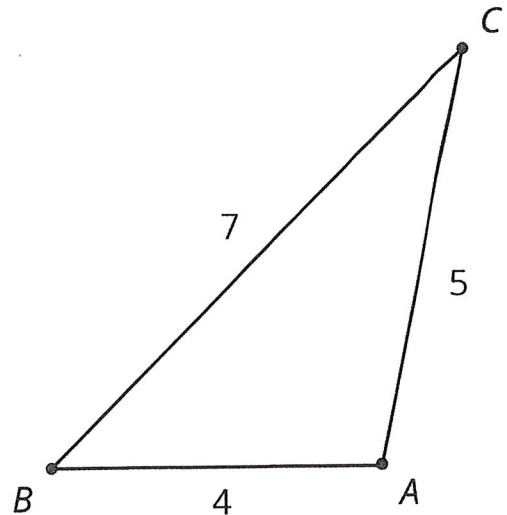
1. These two triangles are similar.



What are  $a$  and  $b$ ? Note: the two figures are not drawn to scale.

- 2.

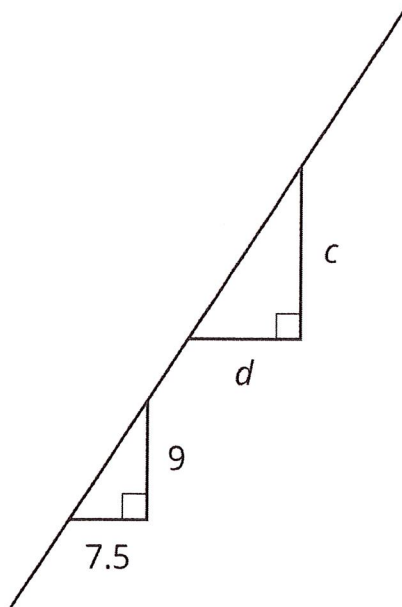
Here is triangle  $ABC$ . Triangle  $XYZ$  is similar to  $ABC$  with scale factor  $\frac{1}{4}$ .



- Draw what triangle  $XYZ$  might look like.
- How do the angle measures of triangle  $XYZ$  compare to triangle  $ABC$ ? Explain how you know.
- What are the side lengths of triangle  $XYZ$ ?

d. For triangle  $XYZ$ , calculate (long side)  $\div$  (medium side), and compare to triangle  $ABC$ .

3. The two triangles shown are similar. Find the value of  $\frac{d}{c}$ .



4. The diagram shows two nested triangles that share a vertex. Find a center and a scale factor for a dilation that would move the larger triangle to the smaller triangle.

