## 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 $A B C$. Triangle $X Y Z$ is similar to $A B C$ with scale factor $\frac{1}{4}$.

a. Draw what triangle $X Y Z$ might look like.
b. How do the angle measures of triangle $X Y Z$ compare to triangle $A B C$ ? Explain how you know.
c. What are the side lengths of triangle $X Y Z$ ?
d. For triangle $X Y Z$, calculate (long side) $\div$ (medium side), and compare to triangle $A B C$.
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.

(From Unit 2, Lesson 5.)
