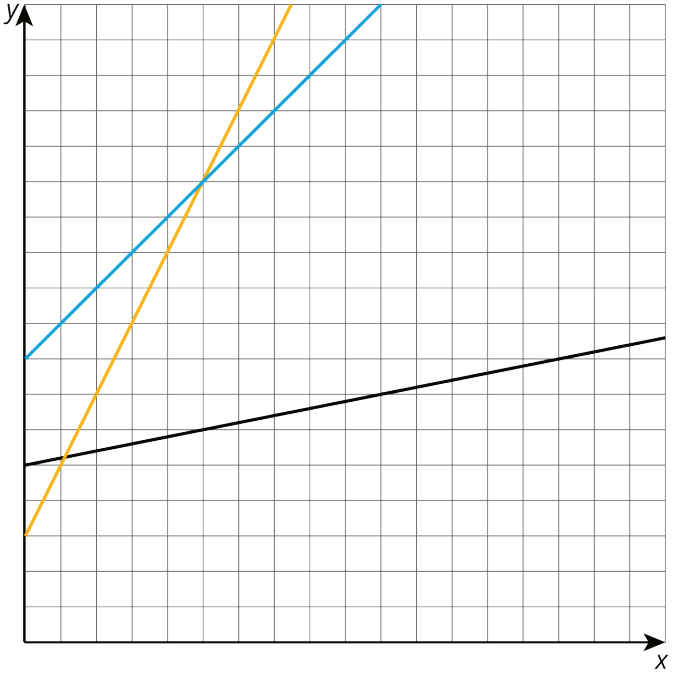
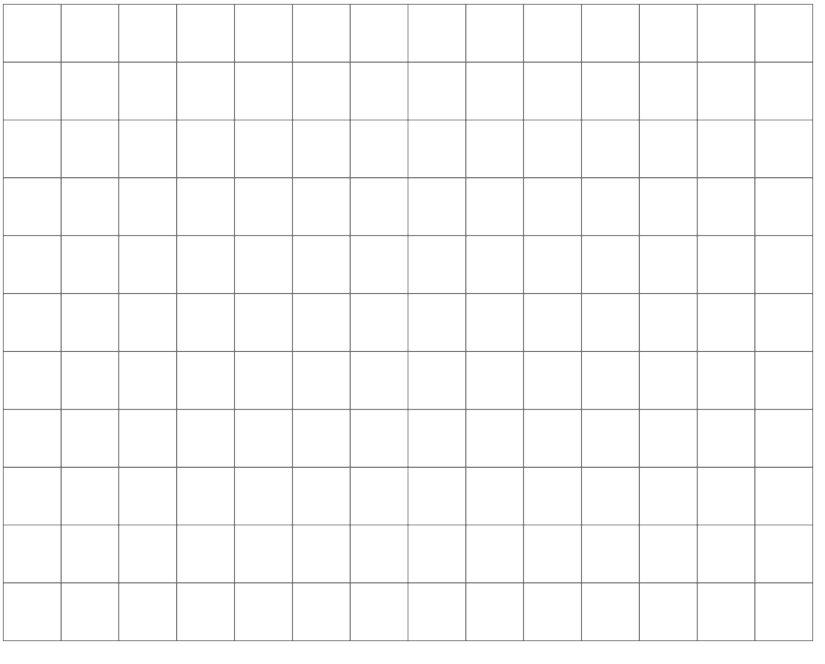
Lesson 10 Practice Problems

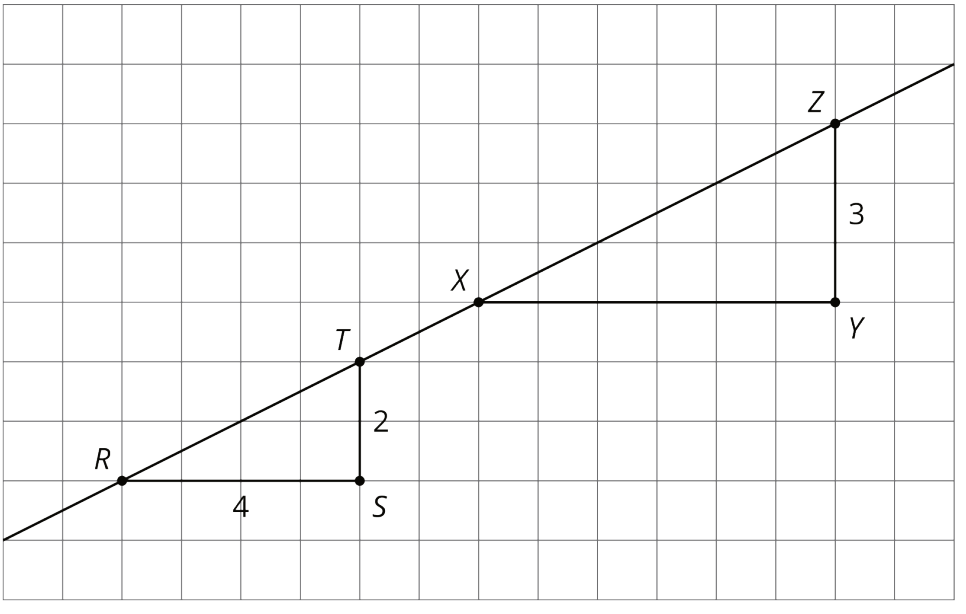
1. Of the three lines in the graph, one has slope 1, one has slope 2, and one has slope $\frac{1}{5}$. Label each line with its slope.



2. Draw three lines with slope 2, and three lines with slope $\frac{1}{3}$. What do you notice?



3. The figure shows two right triangles, each with its longest side on the same line.



a. Explain how you know the two triangles are similar.

b. How long is XY?

c. For each triangle, calculate (vertical side) ÷ (horizontal side).

d. What is the slope of the line? Explain how you know.

4. Triangle A has side lengths 3, 4, and 5. Triangle B has side lengths 6, 7, and 8.

a. Explain how you know that Triangle B is *not* similar to Triangle A.

b. Give possible side lengths for Triangle B so that it is similar to Triangle A.

(From Unit 2, Lesson 9.)