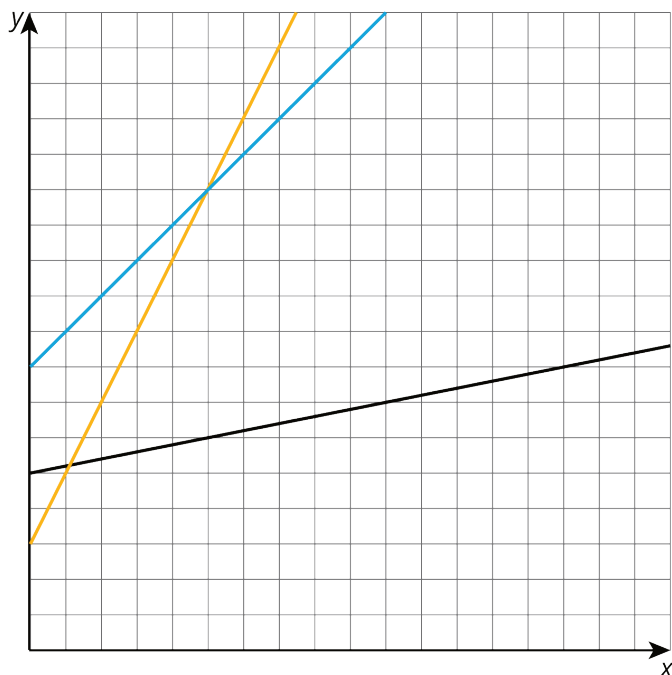
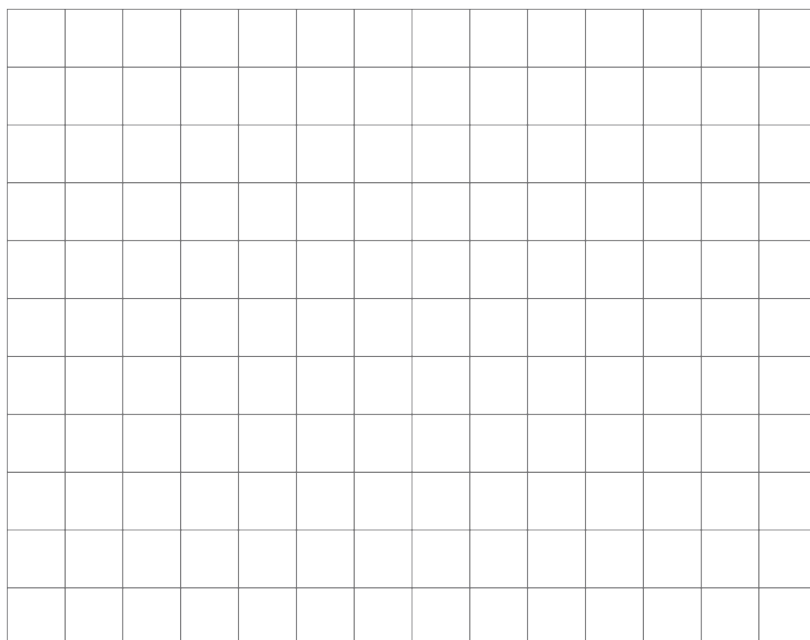


Lesson 15 Practice Problems

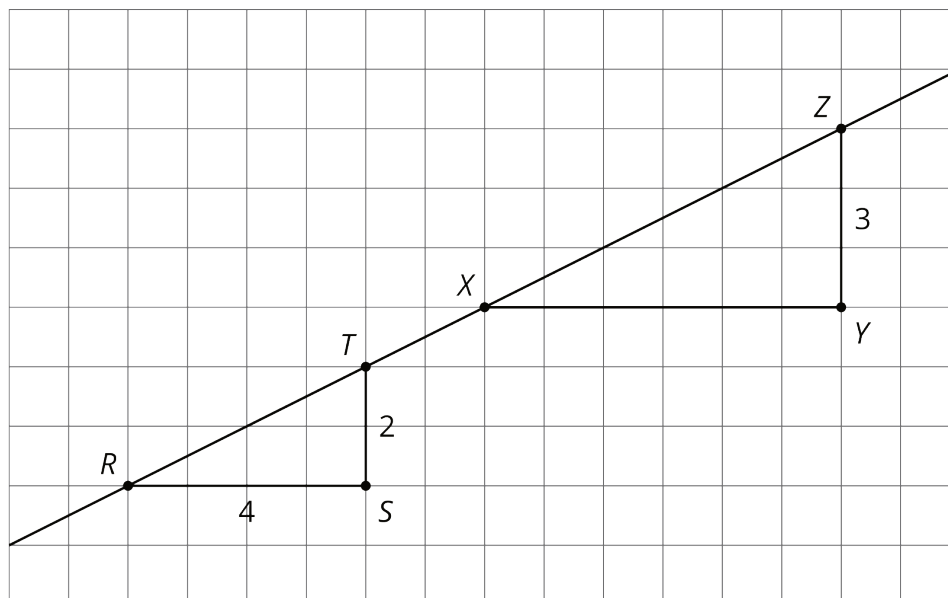
1. Of the three lines in the graph, one has slope 1, one has slope 2, and one has slope $\frac{1}{5}$. Label each line with its slope.



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.



- Explain how you know the two triangles are similar.
- How long is XY ?
- For each triangle, calculate (vertical side) \div (horizontal side).
- 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.

- Explain how you know that Triangle B is *not* similar to Triangle A .
- Give possible side lengths for Triangle B so that it is similar to Triangle A .

(From Unit 2, Lesson 14.)

5. Select **all** the ratios that are equivalent to the ratio $12 : 3$.

- A. $6 : 1$
- B. $1 : 4$
- C. $4 : 1$
- D. $24 : 6$
- E. $15 : 6$
- F. $1,200 : 300$
- G. $112 : 13$

(From Unit 2, Lesson 3.)

6. Triangle ABC is a scaled copy of triangle DEF . Side AB measures 12 cm and is the longest side of ABC . Side DE measures 8 cm and is the longest side of DEF .

- a. Triangle ABC is a scaled copy of triangle DEF with what scale factor?

- b. Triangle DEF is a scaled copy of triangle ABC with what scale factor?

(From Unit 2, Lesson 8.)