

Lesson 5 Practice Problems

1. Here are two stories:

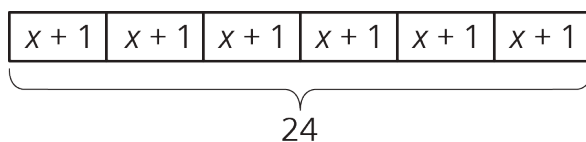
- A family buys 6 tickets to a show. They also *each* spend \$3 on a snack. They spend \$24 on the show.
- Diego has 24 ounces of juice. He pours equal amounts for each of his 3 friends, and then adds 6 more ounces for each.

Here are two equations:

- $3(x + 6) = 24$
- $6(x + 3) = 24$

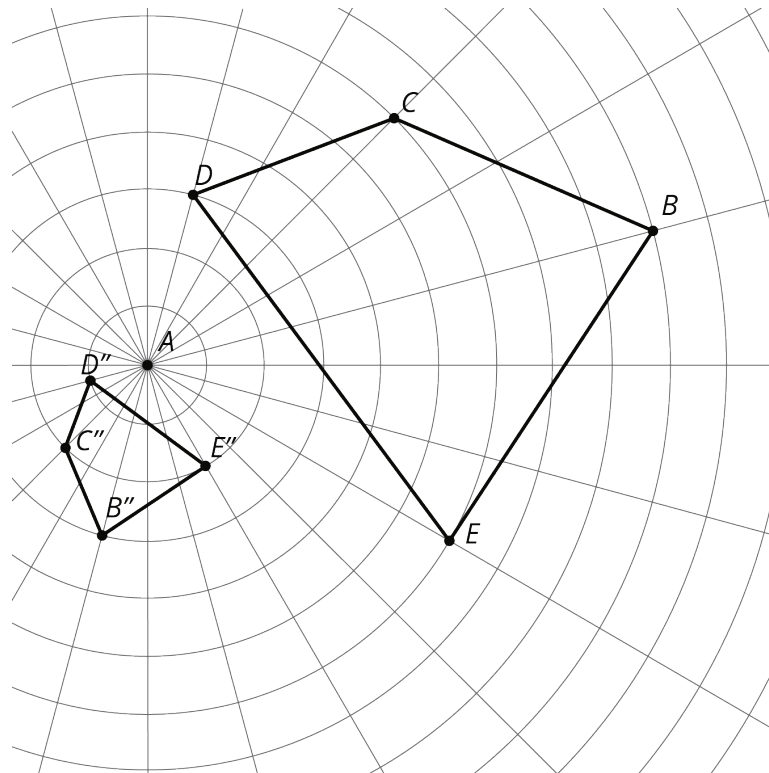
- a. Which equation represents which story?
- b. What does x represent in each equation?
- c. Find the solution to each equation. Explain or show your reasoning.
- d. What does each solution tell you about its situation?

2. Here is a diagram and its corresponding equation. Find the solution to the equation and explain your reasoning.



$$6(x + 1) = 24$$

3. Find a sequence of rotations, reflections, translations, and dilations showing that one figure is similar to the other. Be specific: give the amount and direction of a translation, a line of reflection, the center and angle of a rotation, and the center and scale factor of a dilation.



(From Unit 2, Lesson 11.)

4. Suppose Quadrilaterals A and B are both squares. Are A and B necessarily scaled copies of one another? Explain.

(From Unit 2, Lesson 2.)