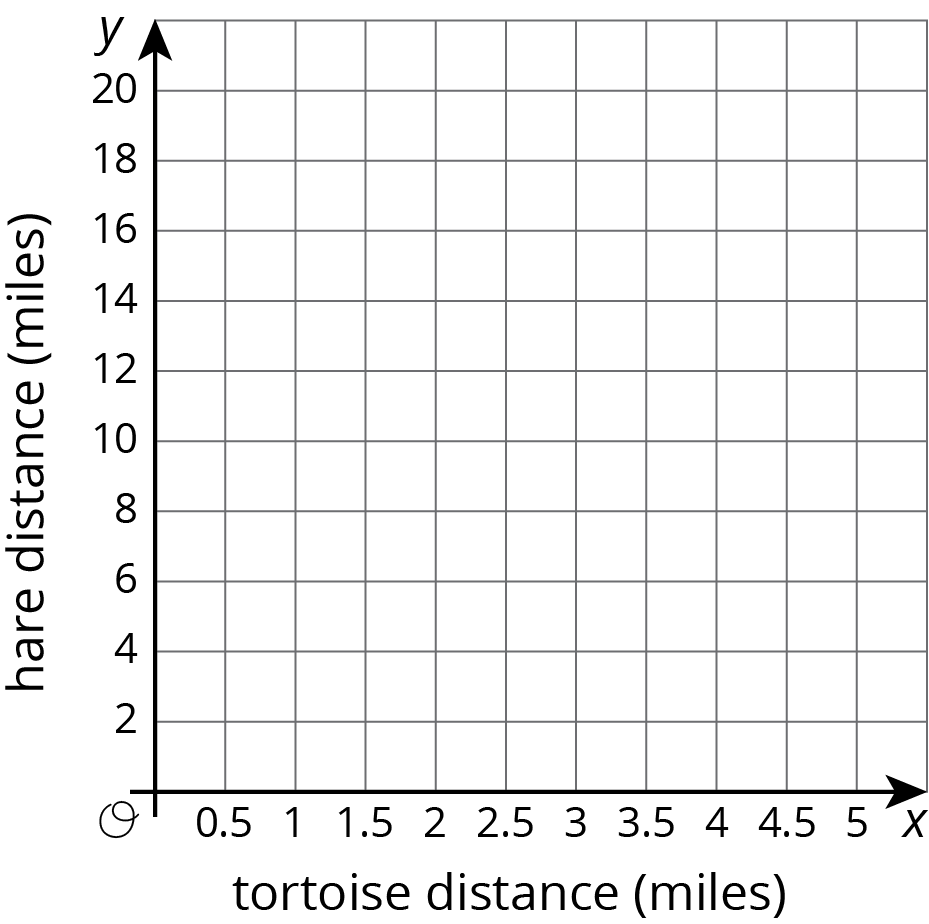
### Lesson 2 Practice Problems

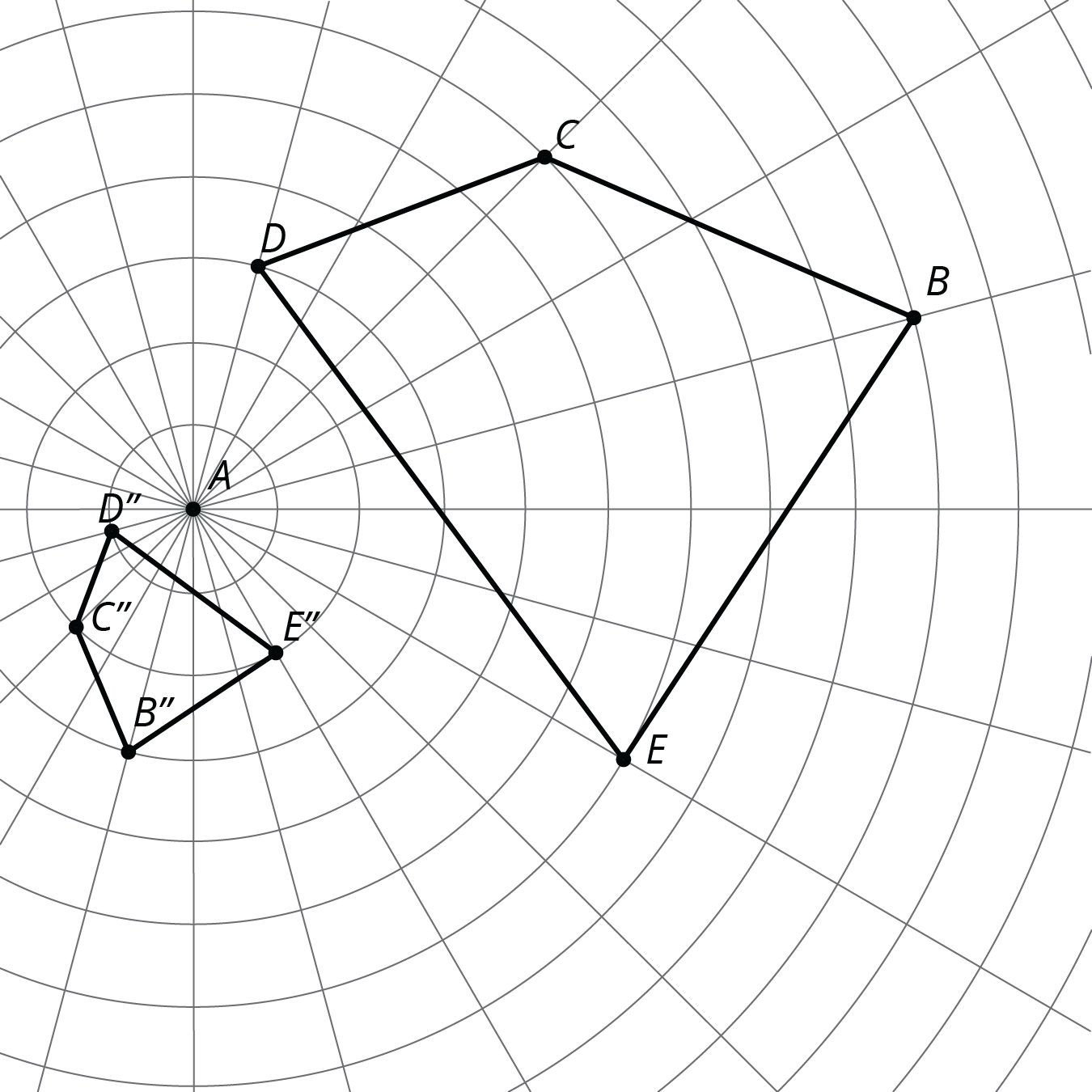
1. The tortoise and the hare are having a race. After the hare runs 16 miles the tortoise has only run 4 miles.

* The relationship between the distance the tortoise “runs” in miles for every miles the hare runs is . Graph this relationship.
* 

1. The table shows a proportional relationship between the weight on a spring scale and the distance the spring has stretched.
   1. Complete the table.
   2. Describe the scales you could use on the  and axes of a coordinate grid that would show all the distances and weights in the table.

| * distance (cm) | * weight (newtons) |
| --- | --- |
| * 20 | * 28 |
| * 55 |  |
|  | * 140 |
| * 1 |  |

1. 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 6.)

1. Andre said, “I found two figures that are congruent, so they can’t be similar.”

* Diego said, “No, they are similar! The scale factor is 1.”
* Do you agree with either of them? Use the definition of similarity to explain your answer.
* (From Unit 2, Lesson 6.)



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