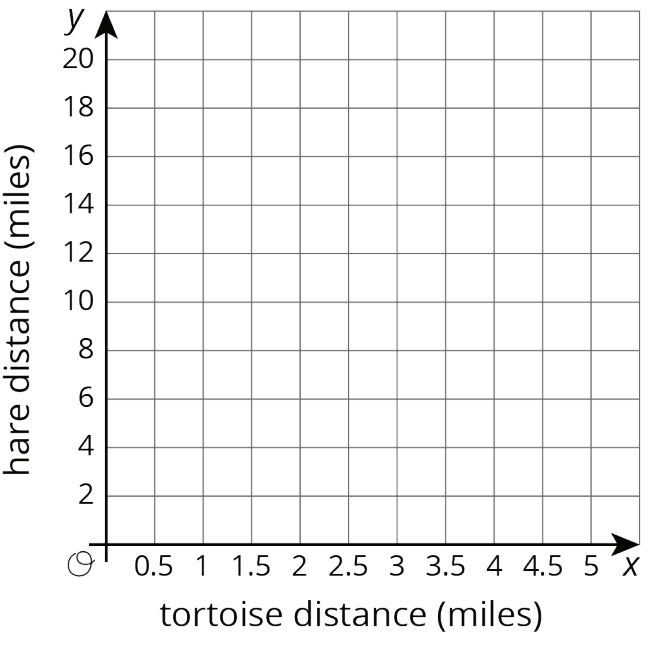
Lesson 2 Practice Problems

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 x the tortoise "runs" in miles for every y miles the hare runs is $y = 4x$. Graph this relationship.



2. The table shows a proportional relationship between the weight on a spring scale and the distance the spring has stretched.

   a. Complete the table.

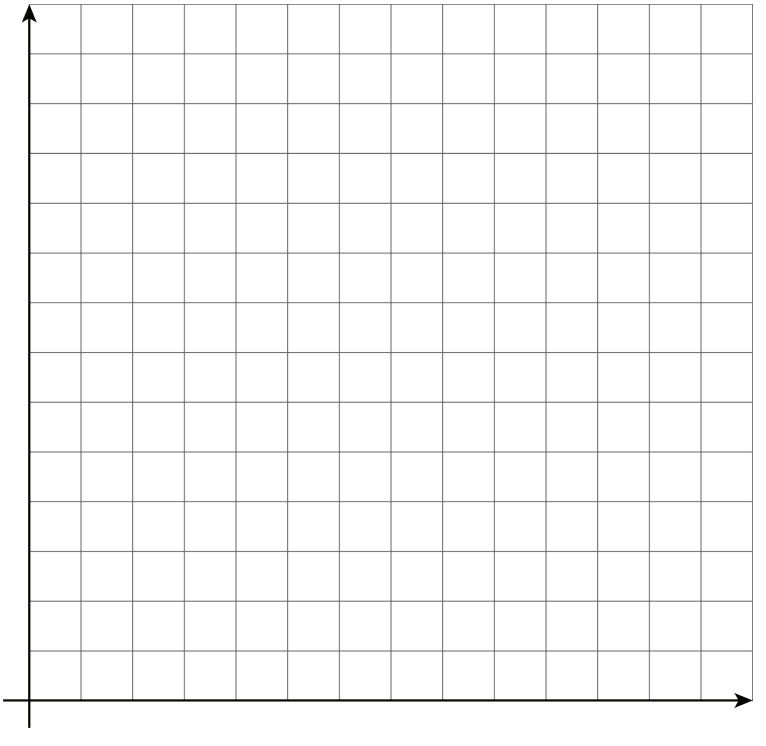
   b. Describe the scales you could use on the x and y axes of a coordinate grid that would show all the distances and weights in the table.

distance (cm)	weight (newtons)
20	28
55	
	140
1	

3. Students are selling raffle tickets for a school fundraiser. They collect $24 for every 10 raffle tickets they sell.

   a. Suppose M is the amount of money the students collect for selling R raffle tickets. Write an equation that reflects the relationship between M and R.

   b. Label and scale the axes and graph this situation with M on the vertical axis and R on the horizontal axis. Make sure the scale is large enough to see how much they would raise if they sell 1000 tickets.



4. Describe how you can tell whether a line's slope is greater than 1, equal to 1, or less than 1.

(From Unit 2, Lesson 15.)