### 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.
* 
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 $x$ 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
 |  |

1. Students are selling raffle tickets for a school fundraiser. They collect $24 for every 10 raffle tickets they sell.
	1. 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 $R$.
	2. 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.
	* 
2. 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.)



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