## Unit 2 Lesson 10 Cumulative Practice Problems

1. Which graphs could represent a proportional relationship?
* 
	1. A
	2. B
	3. C
	4. D
1. A lemonade recipe calls for $\frac{1}{4}$ cup of lemon juice for every cup of water.
	1. Use the table to answer these questions.
		1. What does $x$ represent?
		2. What does $y$ represent?
		3. Is there a proportional relationship between $x$ and $y$?
	2. Plot the pairs in the table in a coordinate plane.

|  |  |
| --- | --- |
| * $x$
 | * $y$
 |
| * 1
 | * $\frac{1}{4}$
 |
| * 2
 | * $\frac{1}{2}$
 |
| * 3
 | * $\frac{3}{4}$
 |
| * 4
 | * 1
 |

1. Select **all** the pieces of information that would tell you $x$ and $y$ have a proportional relationship. Let $y$ represent the distance in meters between a rock and a turtle's current position and $x$ represent the time in minutes the turtle has been moving.
	1. $y=3x$
	2. After 4 minutes, the turtle has walked 12 feet away from the rock.
	3. The turtle walks for a bit, then stops for a minute before walking again.
	4. The turtle walks away from the rock at a constant rate.
* (From Unit 2, Lesson 9.)
1. Decide whether each table could represent a proportional relationship. If the relationship could be proportional, what would be the constant of proportionality?
	1. The sizes you can print a photo.

|  |  |
| --- | --- |
| * + width of photo (inches)
 | * + height of photo (inches)
 |
| * + 2
 | * + 3
 |
| * + 4
 | * + 6
 |
| * + 5
 | * + 7
 |
| * + 8
 | * + 10
 |

* 1. The distance from which a lighthouse is visible.

|  |  |
| --- | --- |
| * + height of a lighthouse (feet)
 | * + distance it can be seen (miles)
 |
| * + 20
 | * + 6
 |
| * + 45
 | * + 9
 |
| * + 70
 | * + 11
 |
| * + 95
 | * + 13
 |

* (From Unit 2, Lesson 7.)



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