Name _____ Date _____

Graphing Proportional Relationships - Guided Lesson Explanation

Explanation#1

Both equations are constant. This makes it very easy to compare. We can calculate the pace they move at any point and simply compare them.

Diego walk: At 1 hour he walked 20 miles. 20/1 = 20 miles per hour

At 4 hours he walked 80 miles. 80/4 = 20 miles per hour

Diego walks at a constant 20 mph pace.

If we put Kevin's walking data to the test

Kevin walk: At 1 hours he walked 10 miles (y = 10(1)) 10 mph pace.

At 4 hours he walked 40 miles (y = 10(4)) 10 mph pace.

Diego walks faster.

Explanation#2

Again, we have constant rates making it easy to compare.

Apartment A: In 2 days they consumed 60 liters. (60/2) = 30 l/day

In 4 days they consumed 120 liters of water. (120/4) = 30 l/day

Apartment B: In 2 days they consumed 30 liters (y = 15(2)) = 15 l/day

In 4 days they consumed 60 liters of water (y = 15 (4)) = 15 l/day

Apartment B consumes less water per day.

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Explanation # 3

This one is a bit trickier because we are not given Griffin's 7 day consumption of biscuits on the graph. So we will need to figure out the rate at which Griffin eats biscuits and go from there.

Griffin : In 2 days, he eats 20 packs of biscuits. 20/2 = 10 packs a day.

In 4 days, he eats 40 packs of biscuits. 40/4 = 10 packs a day.

Griffin is eating biscuits at the rate of 10 packs a day.

In a week (7 days) he would eat 70 (7 x 10) packs of biscuits.

Bradley : Bradley is a lot easier. We have the formula to work with. If we want to find out how many packs he eats, we set it up as:

Y = 5 x 7 = 35 packs of biscuits

70 packs of biscuits > 35 packs of biscuits

Griffin eats more biscuits over 7 days (a week).