March 21, 2011

Welcome Spring!

Today's Agenda ~
MCA ??'s
Check Grades
Continue 8.2.1
Begin 8.2.2

Go ahead and log in to your computer now.

Homework: p. 402 (4)

Class starts in

0.0:0.5 0.0

Please be ready.

MCA ??'s

⑪   Bands   Pond

Catches

$$\frac{54}{?} = \frac{13}{70}$$

Catcher R.

$$\frac{54 \cdot 70}{13} = 290.7$$

about 300

③ Ⓓ healthy

Think & Discuss

Look at your graphs for Maria and Bronwyn. What are the slopes of Maria's and Bronwyn's lines? What does the slope mean in Terry's, Maria's, and Bronwyn's graphs?
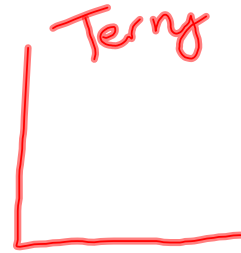
Slopes:

Maria $\dfrac{15}{5} = 3$

Terry $\dfrac{20}{5} = 4$

What does the slope mean?

Terry 4 mps

Maria 3 mps

Bronwyn 3.5 mps

Share & Summarize

1. Javier walks at a speed of 5 feet per second. If you graphed the distance he walks over time, with time in seconds on the horizontal axis and distance in feet on the vertical axis, what would be the slope of the line?

   5, cuz that's his speed

2. Dulce walks at a speed of 7 feet per second. Suppose you graphed the distance she walks over time on the same grid as Javier's line. How would the steepness of her line compare to the steepness of Javier's line? Explain.

   Dulce's line is steeper, cuz she's going faster.

Investigation ② Distance and Time

An airplane flies from New York to Los Angeles. There are two distances that are changing, the distance between the airplane and the New York airport and the distance between the airplane and the Los Angeles airport.

Think & Discuss

Which of the two distances described above is decreasing over time?

Think of other situations in which distance decreases over time.

**Plane to LA**

✓ Develop & Understand: A

On pages 390 and 391, Zach and Maya were walking from the left wall of a room to the right wall. You figured out how far each person was from the left wall at different points in time. Suppose instead you want to know how far the person is from the *right* wall at each point in time.

1. Is the person closest to the right wall at the beginning of the walk or at the end of the walk?

2. Suppose Maya walks at 1.5 meters per second across a room that is 10 meters wide. Copy and complete this table.

Maya's Walk

Time (seconds), t	0	1	2	3	4
Distance from Right Wall (meters), d	10	8.5	7	5.5	4

3. Use the data in Exercise 2 to draw a graph that shows the relationship between Maya's distance from the right wall and time.

Maya's Walk

Distance from Right Wall (m)

Time (s)
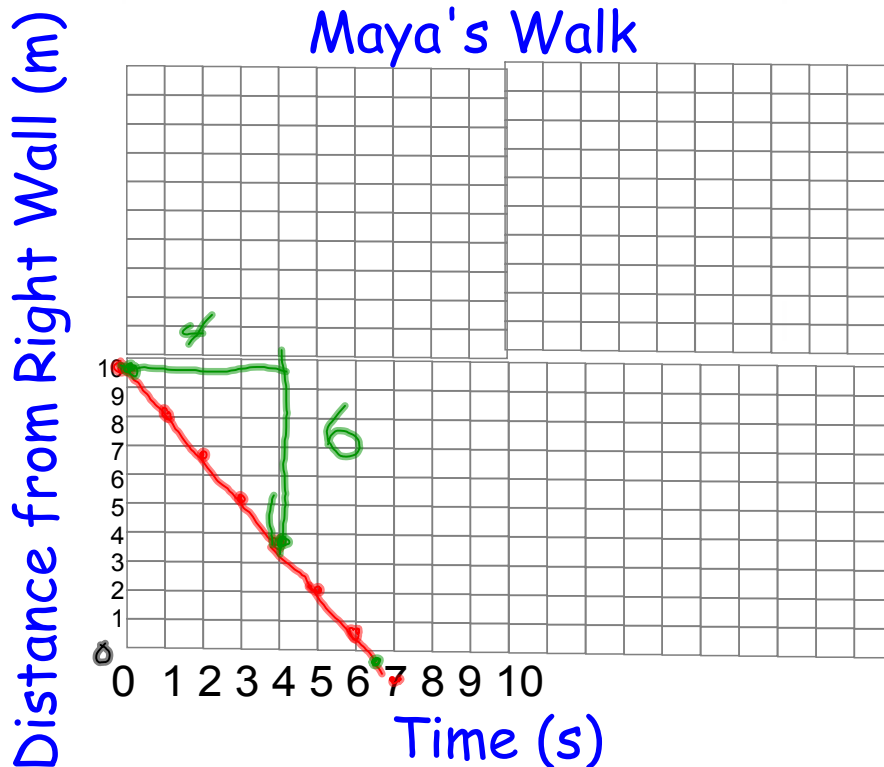
4. What is the slope of the line that you drew?

$$\frac{-6}{4} = -1.5$$

5. Use your graph to estimate when Maya would reach the right wall.

b/w 6+7 sec.

6. Explain how you can find the distance from the right wall if you know the time.

7. Write a symbolic rule that relates d to t.

$$d = 10 - 1.5t$$

Think & Discuss

Bianca and Lorenzo solved an equation on a quiz. Bianca wrote the rule $d = -2t + 20$. Lorenzo wrote the rule $d = 20 - 2t$. Can they both be right? Explain your thinking.

Create a problem that can be described by one or both of these rules.

$$d = -2t + 20$$
$$d = -2t + 20$$

GOAL

✅ Develop & Understand: B

Ruben and Kristen started walking away from a fence at the same time. Ruben walked at a brisk pace, and Kristen walked at a slow pace. They each measured the distance they had walked in 10 seconds. From this, they estimated how far from the fence they would have been at various times if they had continued walking. They drew distance-time graphs from their data.

Ruben's and Kristen's Walks
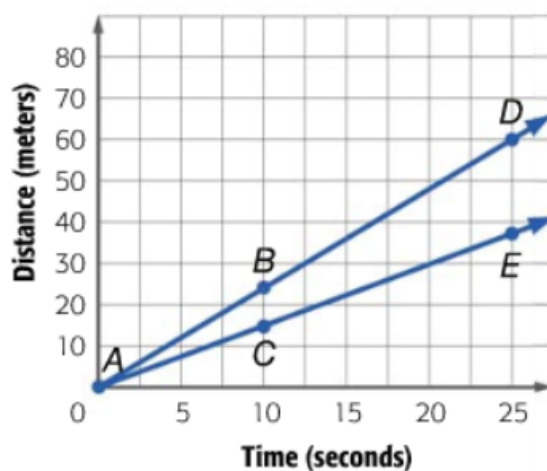
8. Which graph represents Ruben's walk, and which represents Kristen's? Explain how you know.