

March 21, 2011

Welcome Spring!

Class starts in



Please be ready.

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)

MCA ??'s



⑦ We can't tell.

② ① cut down

③ ② Syrupy, sweet soft drink

→ ④

⑤ healthy

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.

$$d = -2t + 20$$

$$d = +20 - 2t$$

Yes.

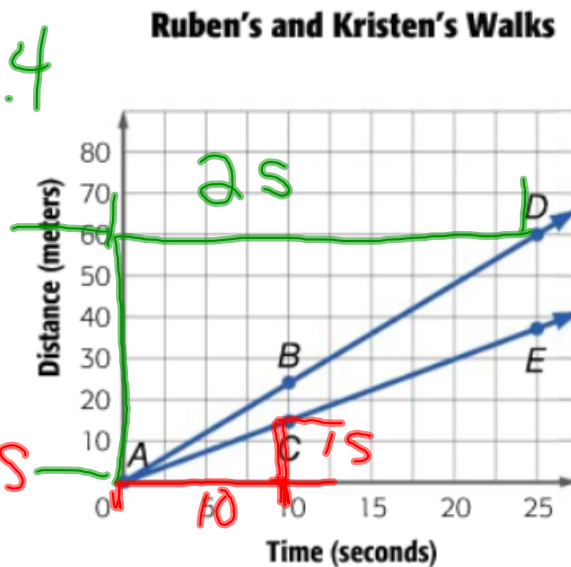
Develop & Understand: B

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 d

$$R = \frac{60}{25} = 2.4$$

60

$$K = \frac{15}{10} = 1.5$$



Ruben
Kristen

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

9. What events in the story above match points A, B, and C?

- A They are about to start.
 B Ruben is 10 sec. into the walk.
 C In 10 sec. Kristen walks 15 m.

10. What do points D and E tell you about the positions of Ruben and Kristen?

- D In 25 secs, R walks 60 m.
 E In 25 sec. Kristen walks 38 m

11. Use the graphs to estimate each person's walking speed in meters per second. Give your answers to the nearest tenth.

$$\begin{aligned} \text{Ruben} &= 2.4 \text{ mps} \\ \text{Kristen} &= 1.5 \text{ mps} \end{aligned}$$

12. Which line has the greater slope, Ruben's or Kristen's? Explain why.

Ruben's - cuz he's faster

13. What are the slopes of the two lines? How are they related to Ruben's and Kristen's speeds?

Ruben's Slope = $\frac{2.4}{1.5}$

Kristen's Slope = $\frac{1.5}{1.5}$

Relationship:

Speed + Slope are the same

Share & Summarize

1. How are the graphs in Exercises 8–13 different from the graphs in Exercises 1–7?

↗ 8-13 positive slopes | 1-7 negative slopes
↘

2. How is the rule in Exercises 1–7 different from the rules in Exercises 8–13? How are they the same?

8-13 +slope | 1-7 -slope

3. Explain how the differences in the rules relate to the differences in the graphs.

Investigation 3 Describe Graphs

Vocabulary

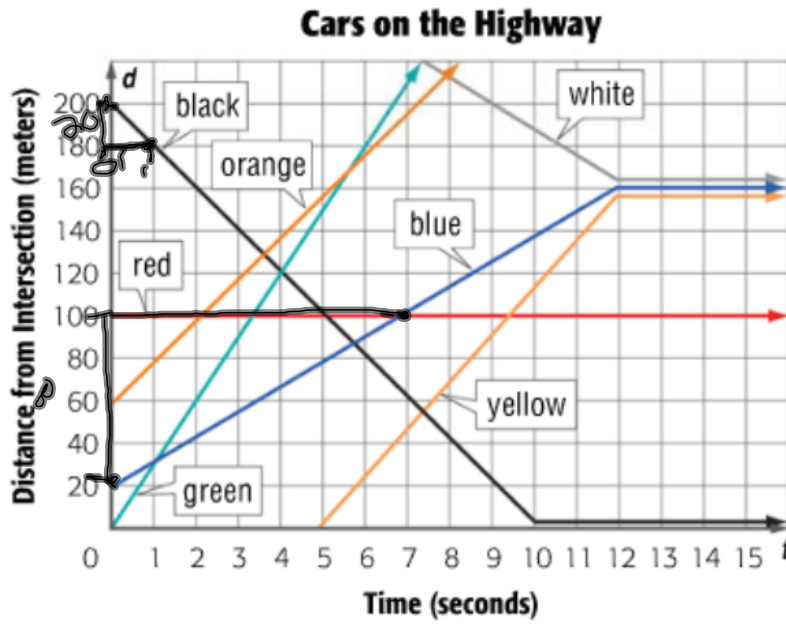
speed

velocity

Some rates vary. For example, if you count your pulse for one minute and then count it for another minute, you will probably get different results. It is normal for pulse rates to fluctuate, or change.

At least for a while, you would expect other rates to be fixed, or stay the same. For example, if your employer said your pay rate was \$7 per hour, you would expect to earn that for each hour you work.

In this investigation, you will inspect the graphs below to find the directions, speeds, and relative locations of a group of cars along a particular highway.



Homework is on pages 402 - 409

1. In what direction is each car moving in relation to the intersection?

black *toward, stopped* white
 orange red
 blue *away, stopped* yellow
 green

2. Compare the cars' speeds.

black $\frac{200}{10} = 20 \text{ mps}$, white
 orange red
 blue $\frac{80}{7} = 11.42 \text{ mps}$, yellow
 green

3. Do any of the cars stop during their trips? If so, which cars?

GOAL