Name _____ Date _____ Hour _____

I Like to Move It, Move It!

Four students will travel at different paces. Record the data below.

_____ walked 3 meters in _____ seconds.

_____ crawled 3 meters in _____ seconds.

_____ skipped 3 meters in _____ seconds.

_____ ran 3 meters in _____ seconds.

1. What is each students' unit rate (meters per one second)? Round to the nearest tenth.

2. How long would it take _____ to travel 800 meters (half a mile)?

3. How far could _____ travel in...

10 seconds

45 seconds

4. Fill in the blanks, which show the components of all linear equations.

_____ +/- _____ x _____ = _____

or by flipping the equation around…

_____ = _____ x _____ +/- _____

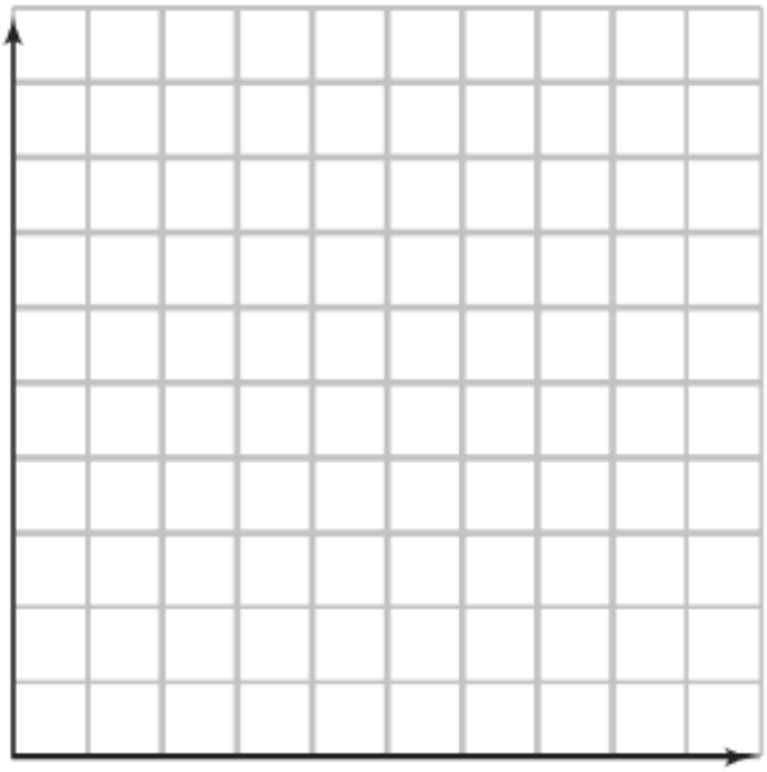
we call this form of a linear equation slope/intercept form

$$y = mx + b$$

5. Write an equation that represents the distance d in meters that each student could travel in t seconds if they maintained this pace.

6. Use the equation to predict the distance _____ would travel in 45 seconds.

7. Use your unit rates from part A to graph your distance over time, for each student. Use a different color for each student. Be sure to include a key, identifying each student.



8. In 30 seconds, count the number of jumping jacks that you are able to complete. Express these values as a ratio, comparing the number of jumping jacks to time.

9. Based on your data, how many jumping jacks could you complete in 60 seconds?

10. Based on your data, how many jumping jacks could you complete in 10 minutes?

11. Is your answer realistic from #10? Defend your answer.

12. Based on your data, how long would it take to complete 200 jumping jacks?