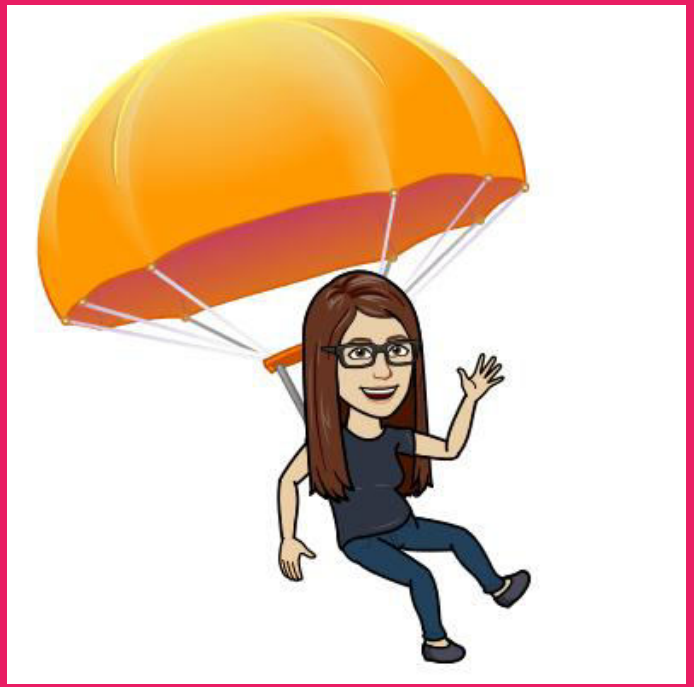
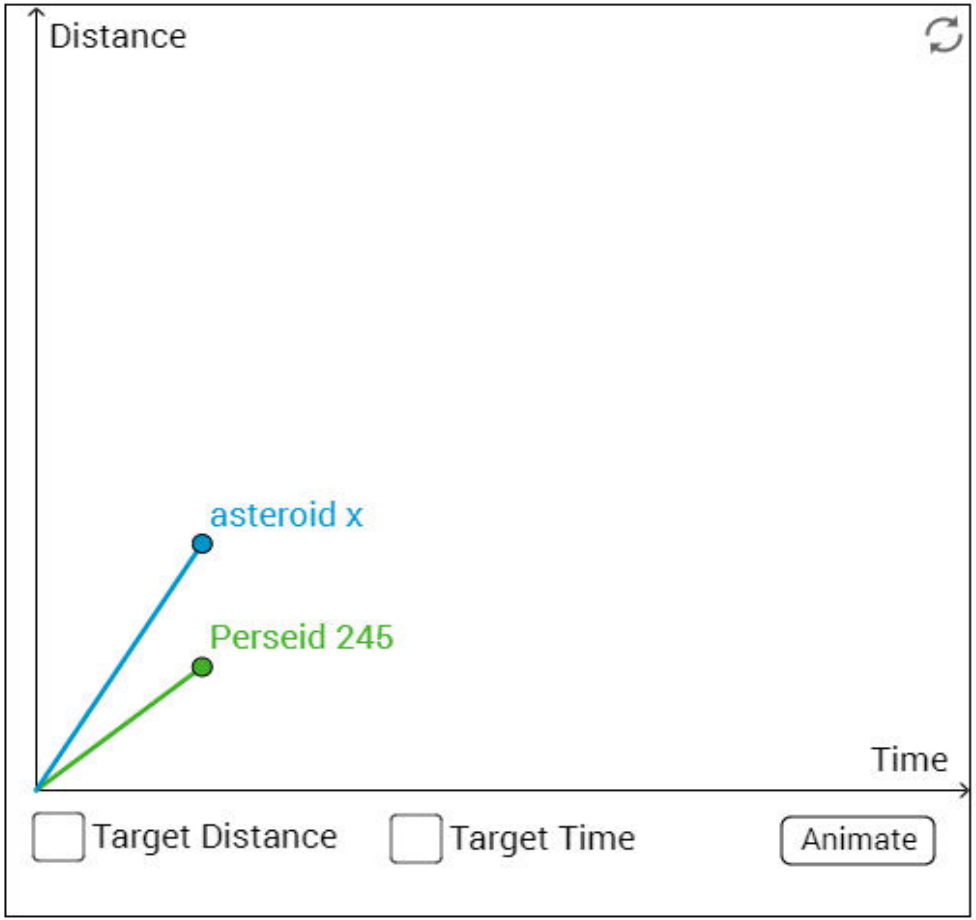
Today's Materials



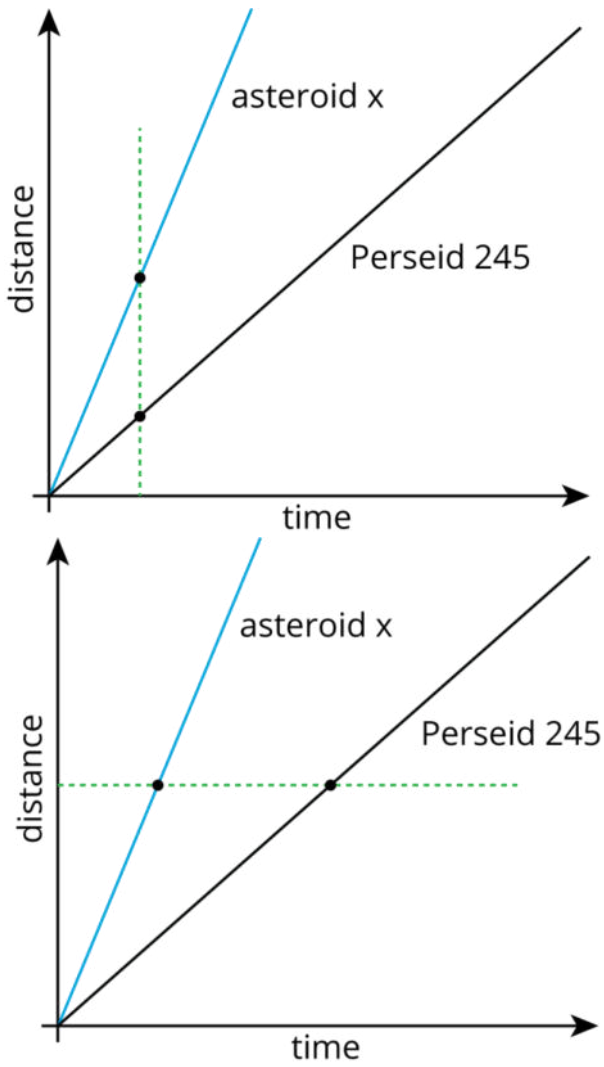
- calculator
- Pencil
- Notebook
- workbook

Which is traveling faster? How do you know?



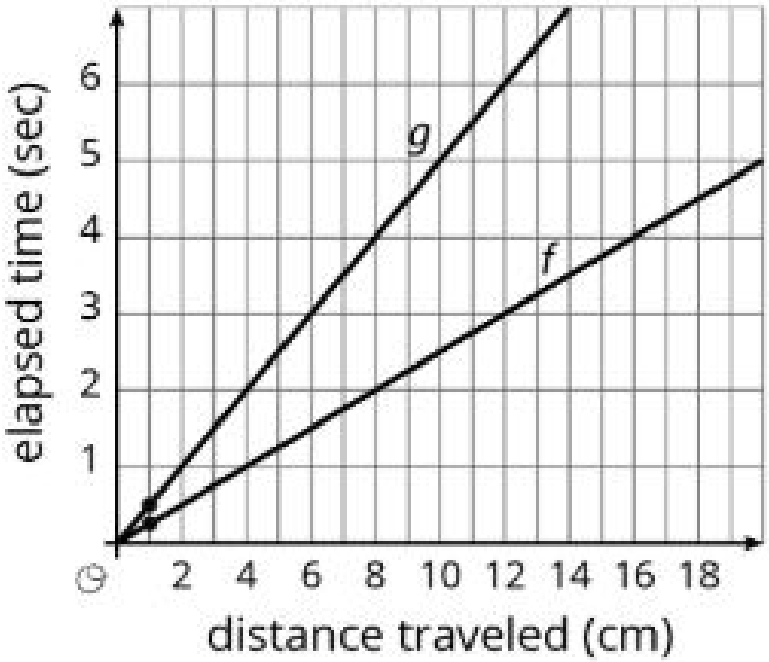
Important ideas:

- A steeper graph has a larger constant of proportionality.
- In a distance vs. time graph, a steeper graph shows a greater speed.



How do I **compare** relationships on graphs?

A steeper graph has a _____ constant of proportionality.



This graph represents _____, so a steeper graph represents a _____ speed.

- Line ____ represents a faster speed.
- Line ____ represents a slower speed.

The COP for line g is _____ than the COP for line f.

Unit 2 Review

Trashketball

Trashketball Directions

1. One problem will be displayed at a time, in a random order. Do not skip ahead to other questions!
2. You will answer the displayed question on your Trashketball Review paper.
3. Compare your answers to your group to come to a consensus.
4. Ms. Koller will pick on someone random for each problem, rotating through table groups.
5. If the student answers the problem correctly, a point will be rewarded to your group. The student will then get an opportunity to shoot a 2-point or 3-point shot.
6. If the student does not get the problem correct, the next team will get an opportunity to answer.

Foul Penalties

Your team will lose a point if….

1. If any student boos another student or displays bad sportsmanship.
2. If any student talks out of turn (i.e. yelling out the answer).

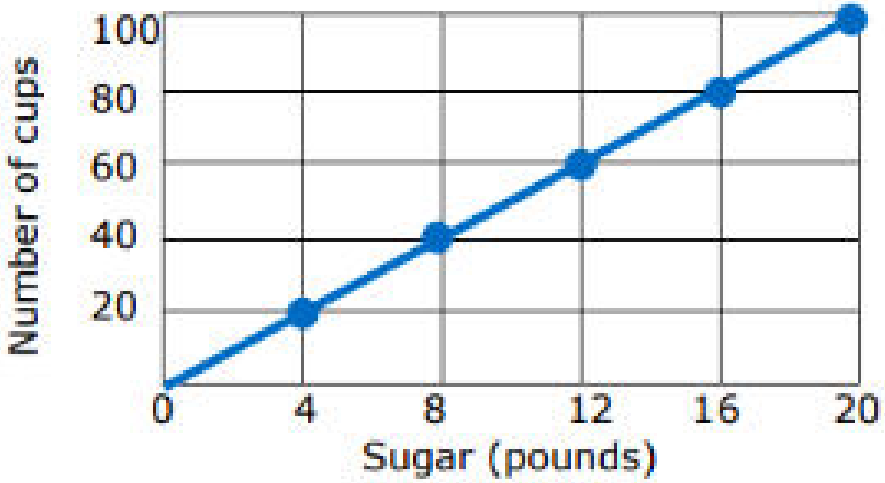
Bonus Free Throws!

There are built-in challenge problems not on your Trashketball sheet.

When these are displayed, Ms. Koller will give all groups 30 seconds - 1 minute to come up with an answer.

When Ms. Koller says to, the first student with their hand raised when asked will get a bonus free throw shot (1-point).

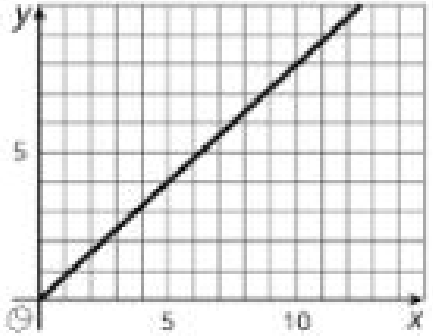
4. The graph below represents the total number of cups of coffee and the total amounts of sugar required to make the coffee.



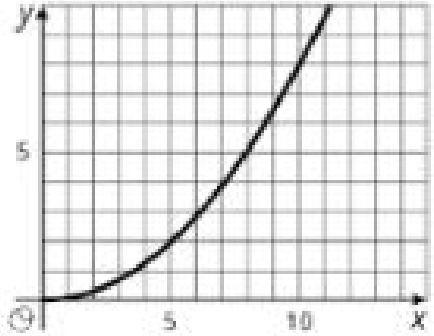
What is the constant of proportionality?

1. **Which graphs could represent a proportional relationship? Explain how you know.**

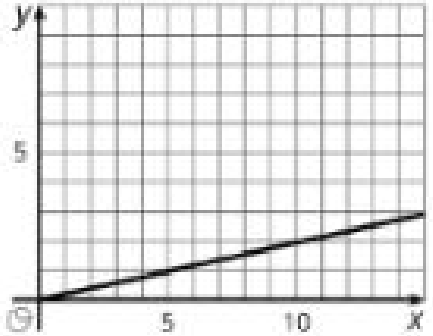
A



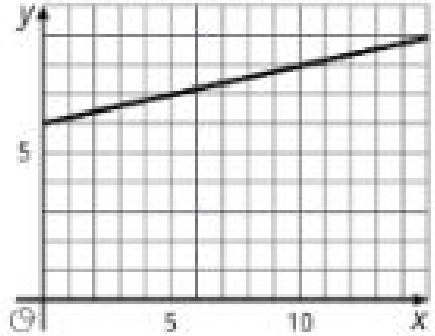
B



C



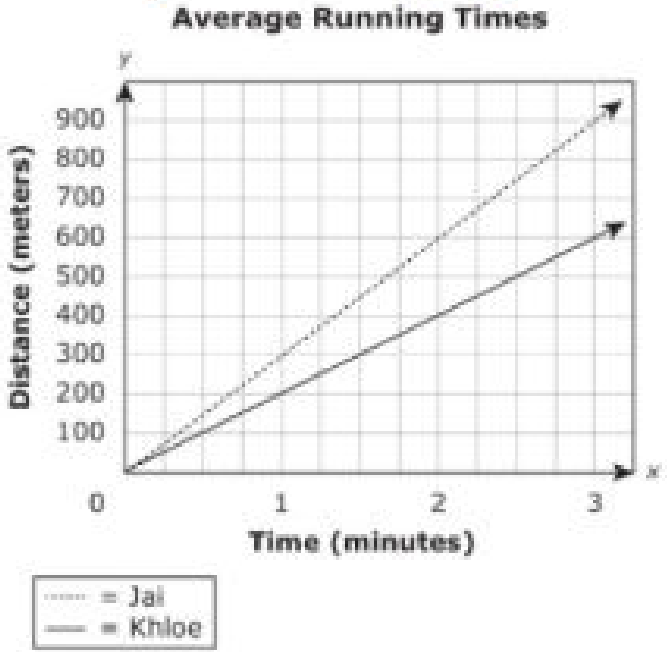
D



10. Complete the table.

Hours	Miles
0	0
1	
2	
3	195
4	

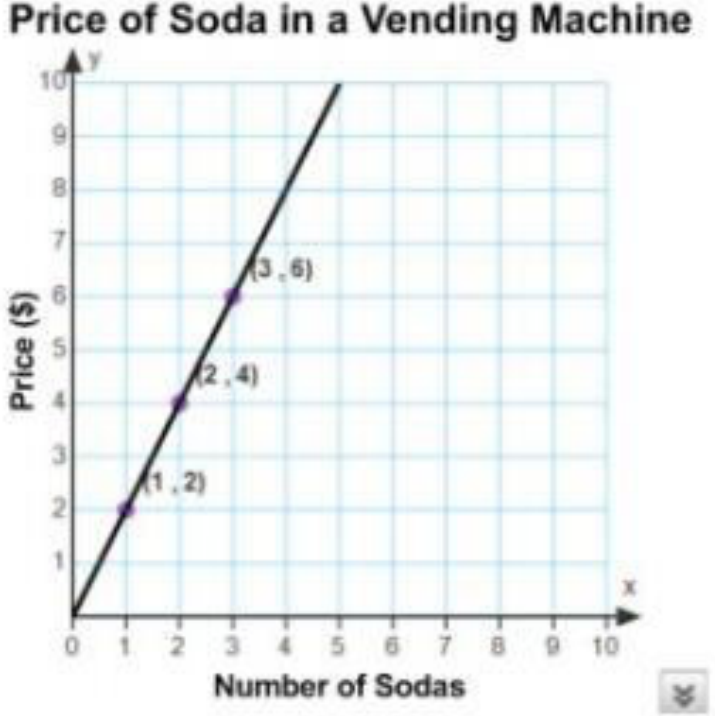
6. Jai and Khloe's coach recorded their average running times in a graph.



Based on the information in the graph, which statement is true?

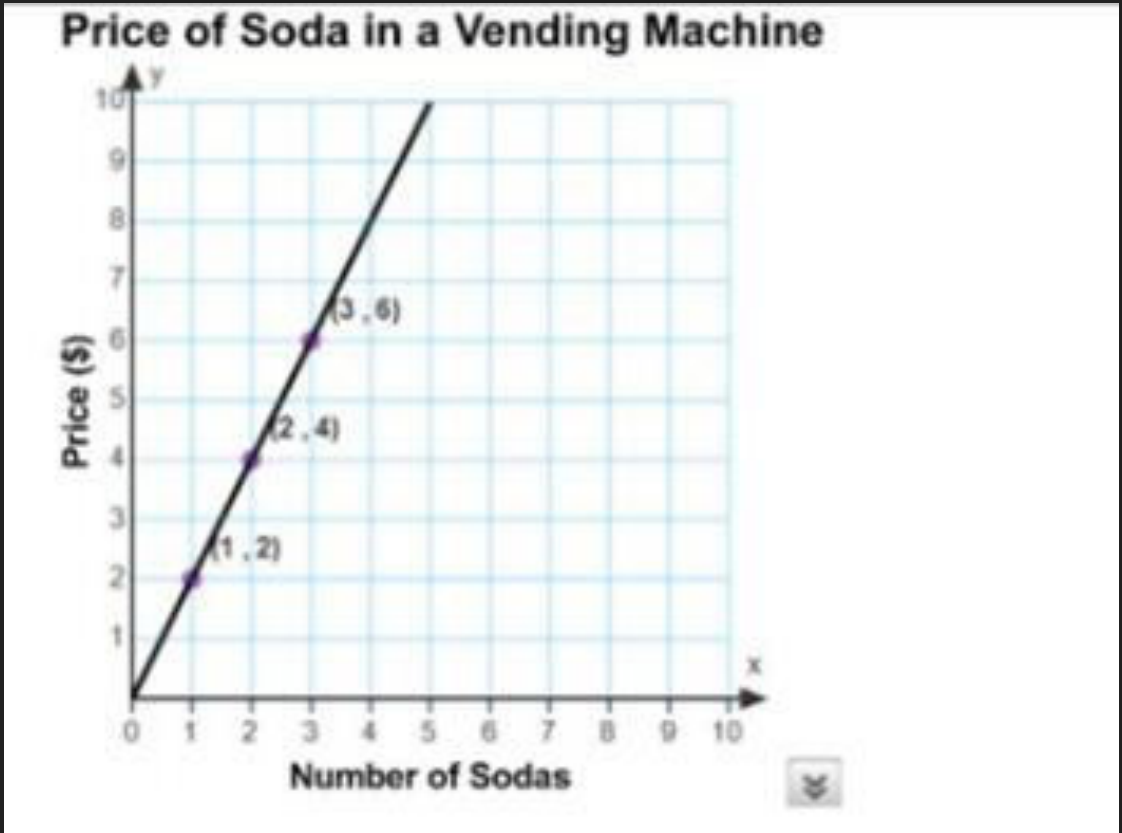
a. Both girls ran at the same speed because they started at (0, 0).
b. Jai ran at a faster speed because her unit rate was 300 meters per minute.
c. Khloe ran at a faster speed because her unit rate was 400 meters per minute.
d. Since there are two separate lines, it is not possible to calculate a unit rate and compare the two speeds.

2.



Write an equation to represent this relationship. Let 's' represent number of sodas and 'c' represent the cost.

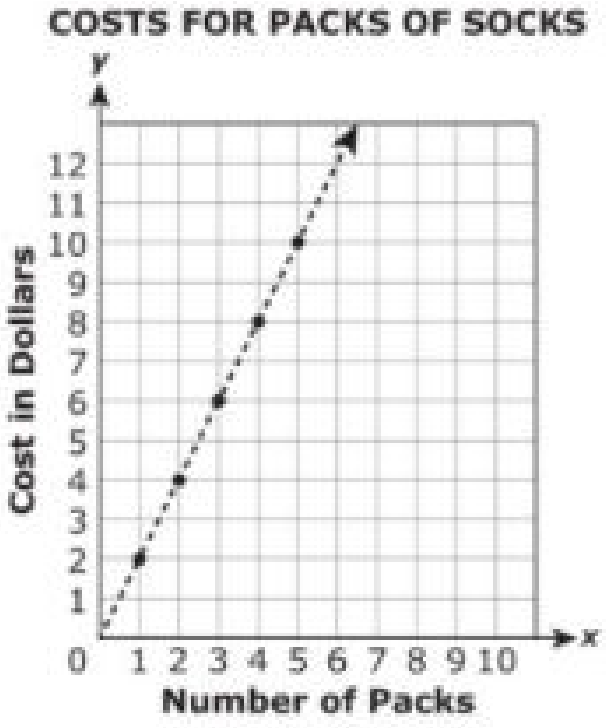
Bonus Free Throw!



What does the point (1, 2) represent?

Hint: what is the story it is telling?

5. Use the graph of this proportional relationship to answer Parts A and B.



Part A: Which point represents the unit rate? Label it in the graph. Explain the significance of the point.

Part B: What does the coordinate (30, 60) mean in this context?

3. Write an equation for the miles driven per hour. Use 'h' for hours and 'm' for miles.

Hours (h)	Miles (m)
0	0
1	55
2	110
3	165
4	220

Bonus Free Throw!

Hours (h)	Miles (m)
0	0
1	55
2	110
3	165
4	220

Write a second equation for this proportional relationship.

7. Does this table show a proportional relationship? Why or why not?

X	Y
10	60
2	12
5	35

12. An equation of a proportional relationship is $r = 3.5b$. Write a second equation for the same relationship.

8. Does this table show a proportional relationship? Explain your reasoning.

Time (min)	0	1	2	3	4
Distance (feet)	0	6	12	18	24

9. Michael's car can travel 25 miles on one gallon of gas. The cost of gas is $3.75 per gallon. Which equation would calculate the total cost of gas, t, based on the number of miles traveled, n?

a. t=0.11n
b. t=0.15n
c. t=1.50n
d. t=6.67n

11. Write an equation to represent this problem. Use 'c' for cans of paint and 'b' for birdhouses painted.

Cans of Paint (x)	5	10	6	9	2
Bird Houses Painted (y)	15	30	18	27	6