



Unit 3

Cool-downs

Linear Relationships

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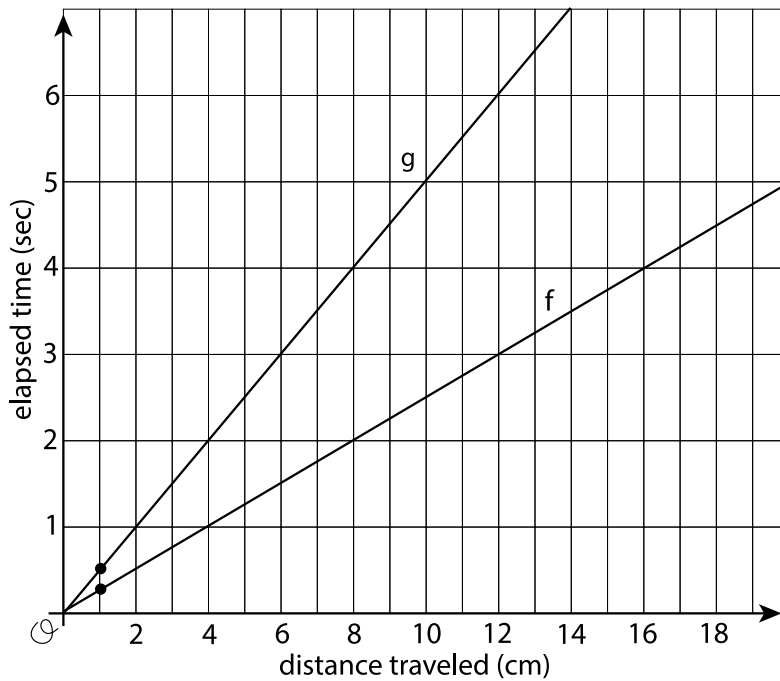
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Unit 3, Lesson 1 Cool-down

1.4 Turtle Race

This graph represents the positions of two turtles in a race.



1. On the same axes, draw a line for a third turtle that is going half as fast as the turtle described by line *g*.
2. Explain how your line shows that the turtle is going half as fast.

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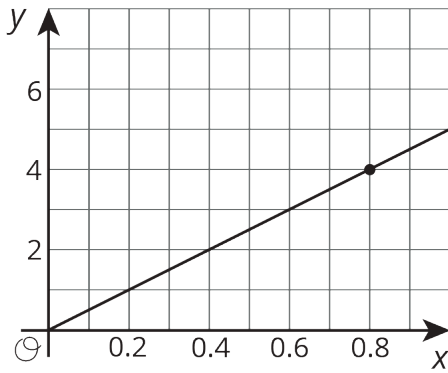
Unit 3, Lesson 2

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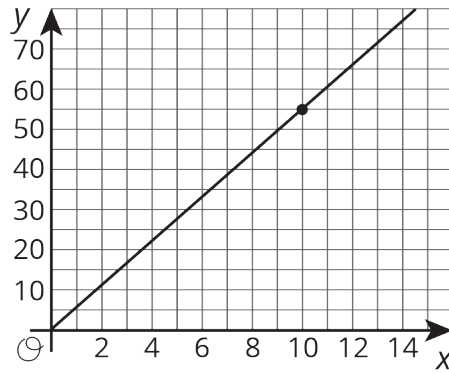
2.4 Different Axes

Which one of these relationships is different than the other three? Explain how you know.

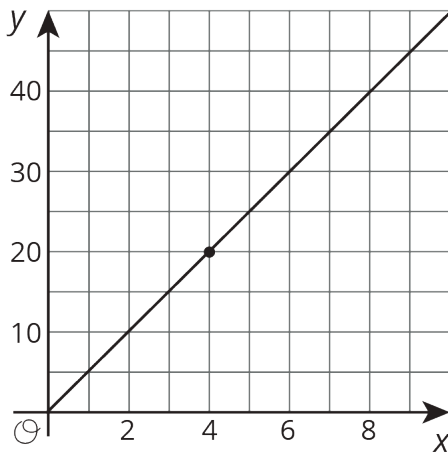
A



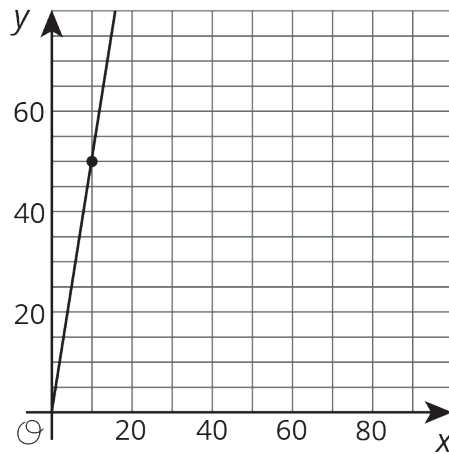
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Unit 3, Lesson 3

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3.4 Graph the Relationship

Sketch a graph that shows the relationship between grams of honey and grams of salt needed for a bakery recipe. Show on the graph how much honey is needed for 70 grams of salt.

salt (g)	honey (g)	flour (c)
10	14	4
25	35	10





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4.3 Different Salt Mixtures

Here are recipes for two mixtures of salt and water that taste different.

Mixture A:

salt (teaspoons)	water (cups)
4	5
7	$8\frac{3}{4}$
9	$11\frac{1}{4}$

Mixture B is defined by the equation $y = 2.5x$, where x is the number of teaspoons of salt and y is the number of cups of water.

1. If you used 10 cups of water, which mixture would use more salt? How much more? Explain or show your reasoning.

2. Which mixture tastes saltier? Explain how you know.



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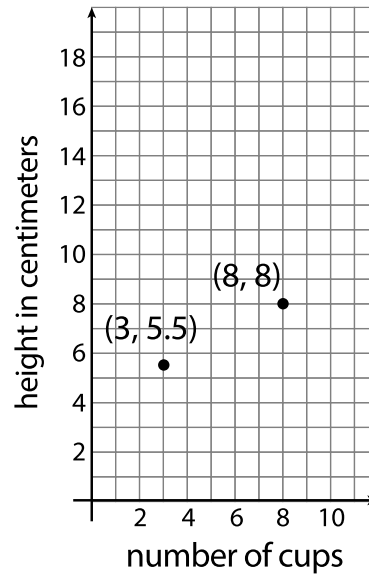
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Unit 3, Lesson 5

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5.4 Stacking More Cups

A shorter style of cup is stacked tall. The graph displays the height of the stack in centimeters for different numbers of cups. How much does each cup after the first add to the height of the stack? Explain how you know.



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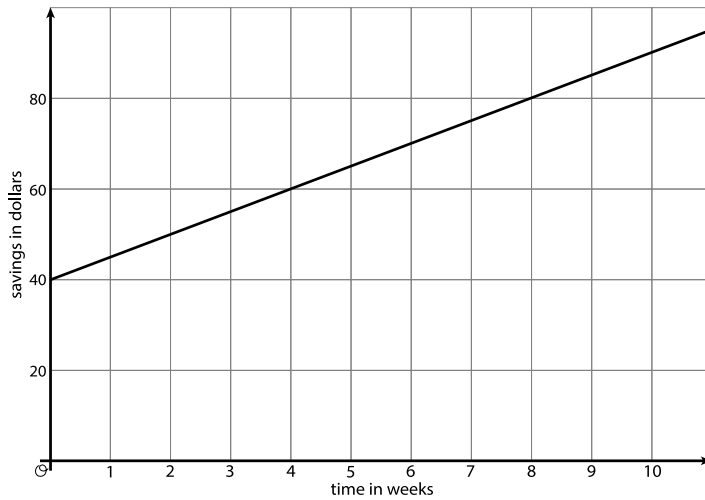
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6.4 Savings

The graph shows the savings in Andre’s bank account.

1. What is the slope of the line?
2. What is the meaning of the slope in this situation?





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Unit 3, Lesson 7**Cool-down****7.4 Graphing a Line**

Make a sketch of a linear relationship with slope of 3 that is not a proportional relationship. Show how you know that the slope is 3. Write an equation for the line.



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Unit 3, Lesson 8**Cool-down****8.4 Similarities and Differences in Two Lines**

Describe how the graph of $y = 2x$ is the same and different from the graph of $y = 2x - 7$. Explain or show your reasoning.

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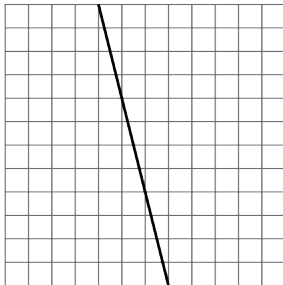
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9.5 The Slopes of Graphs

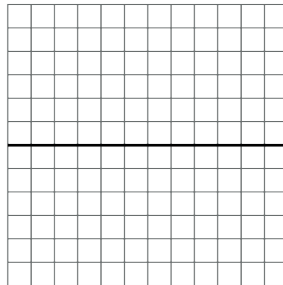
Each square on a grid represents 1 unit on each side.

1. Calculate the slope of graph D. Explain or show your reasoning.
2. Calculate the slope of graph E. What situation could the graph represent?
3. On the blank grid, draw a line that passes through the indicated point and has slope -2.

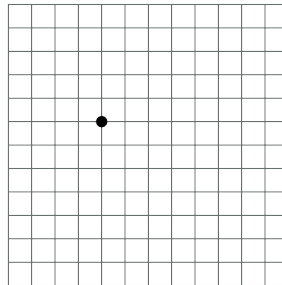
D



E



F





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Unit 3, Lesson 10**Cool-down****10.4 Different Slopes**

Without graphing, find the slope of the line that goes through

1. $(0, 5)$ and $(8, 2)$.
2. $(2, -1)$ and $(6, 1)$.
3. $(-3, -2)$ and $(-1, -5)$.

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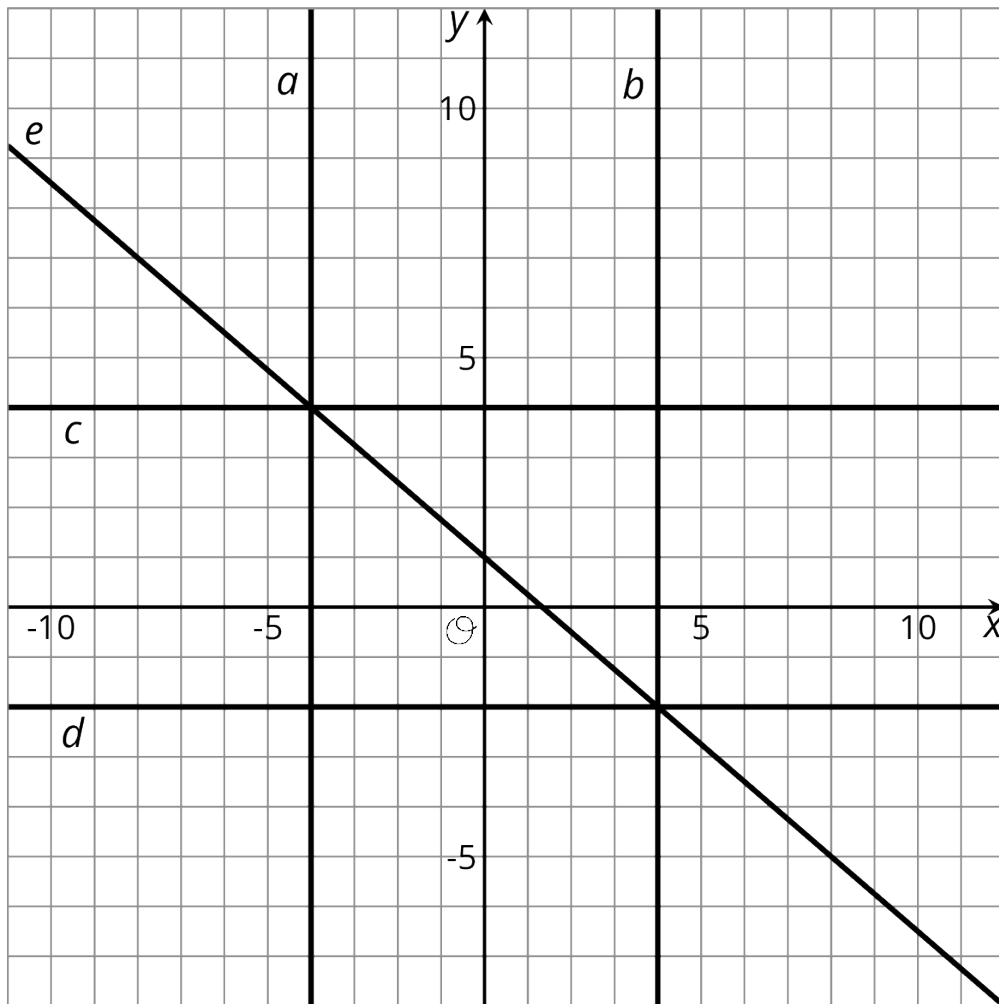
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Unit 3, Lesson 11

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11.4 Line Design

Here are 5 lines on a coordinate grid:



Write equations for lines *a*, *b*, *c*, *d*, and *e*.



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Unit 3, Lesson 12**Cool-down****12.4 Identify the Points**

Which of the following coordinate pairs make the equation $x - 9y = 12$ true?

1. $(12, 0)$
2. $(0, 12)$
3. $(3, -1)$
4. $(0, -\frac{4}{3})$

