Unit 2 Lesson 11: Connecting Equations to Graphs (Part 2)

1 Rewrite These! (Warm up)

Student Task Statement

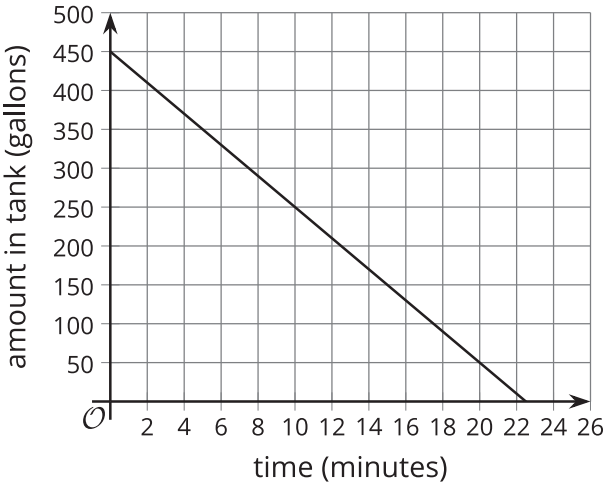
Rewrite each quotient as a sum or a difference.

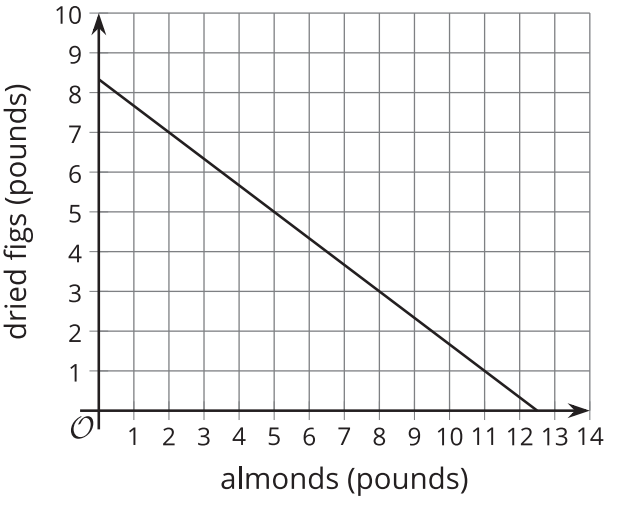
1. $\frac{4x - 10}{2}$
2. $\frac{1 - 50x}{-2}$
3. $\frac{5(x + 10)}{25}$
4. $\frac{-\frac{1}{5}x + 5}{2}$

2 Graphs of Two Equations

Student Task Statement

Here are two graphs that represent situations you have seen in earlier activities.





1. The first graph represents $a = 450 - 20t$, which describes the relationship between gallons of water in a tank and time in minutes.

   a. Where on the graph can we see the 450? Where can we see the -20?

   b. What do these numbers mean in this situation?

2. The second graph represents $6x + 9y = 75$. It describes the relationship between pounds of almonds and figs and the dollar amount Clare spent on them.

   Suppose a classmate says, "I am not sure the graph represents $6x + 9y = 75$ because I don't see the 6, 9, or 75 on the graph." How would you show your classmate that the graph indeed represents this equation?

3 Slope Match

Student Task Statement

Match each of the equations with the slope m and y-intercept of its graph.

1. $-4x + 3y = 3$
2. $12x - 4y = 8$
3. $8x + 2y = 16$
4. $-x + \frac{1}{3}y = \frac{1}{3}$
5. $-4x + 3y = -6$

A: $m = 3$, y-int $= (0, 1)$

B: $m = \frac{4}{3}$, y-int $= (0, 1)$

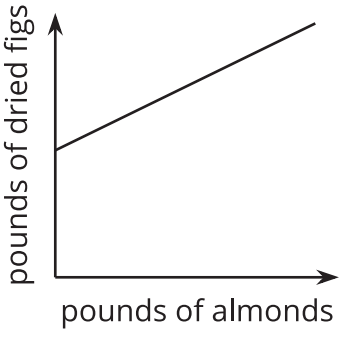
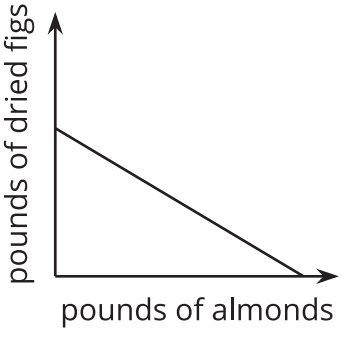
C: $m = \frac{4}{3}$, y-int $= (0, -2)$

D: $m = -4$, y-int $= (0, 8)$

E: $m = 3$, y-int $= (0, -2)$

Images for Activity Synthesis

Graph A



Graph B