## 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. $\frac{5\left(x+10\right)}{25}$
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.
	1. Where on the graph can we see the 450? Where can we see the -20?
	2. 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: $m=3$, $y-int=\left(0,1\right)$

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

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

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

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

#### Images for Activity Synthesis

Graph A



Graph B





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