# Unit 5, Lesson 8: Position, Speed, and Direction

1. A number line can represent positions that are north and south of a truck stop on a highway. Decide whether you want positive positions to be north or south of the truck stop. Then plot the following positions on a number line.

   a. The truck stop
   b. 5 miles north of the truck stop
   c. 3.5 miles south of the truck stop

2. a. How could you distinguish between traveling west at 5 miles per hour and traveling east at 5 miles per hour without using the words "east" and "west"?

   b. Four people are cycling. They each start at the same point. (0 represents their starting point.) Plot their finish points after five seconds of cycling on a number line
      - Lin cycles at 5 meters per second
      - Diego cycles at -4 meters per second
      - Elena cycles at 3 meters per second
      - Noah cycles at -6 meters per second

3. Find the value of each expression.

   $16.2 + \text{-}8.4$                                         $\frac{2}{5} - \frac{3}{5}$

   $\text{-}9.2 + \text{-}7$                                    $(\text{-}4\frac{3}{8}) - (\text{-}1\frac{1}{4})$

   (from Unit 5, Lesson 6)

NAME                                                    DATE                    PERIOD

4. A shopper bought a watermelon, a pack of napkins, and some paper plates. In his state, there is no tax on food. The tax rate on non-food items is 5%. The total for the three items he bought was $8.25 before tax, and he paid $0.19 in tax. How much did the watermelon cost?

(from Unit 4, Lesson 10)

5. For each equation, write two more equations using the same numbers that express the same relationship in a different way.

a. $3 + 2 = 5$

b. $7.1 + 3.4 = 10.5$

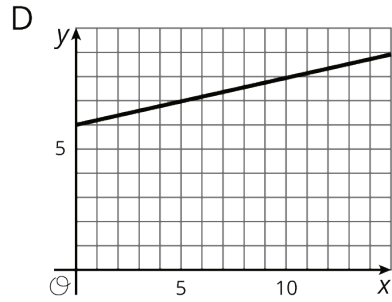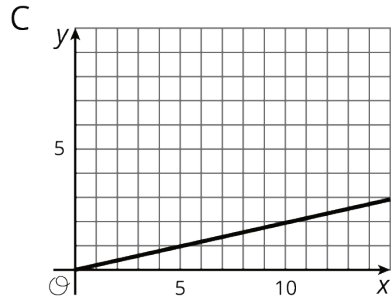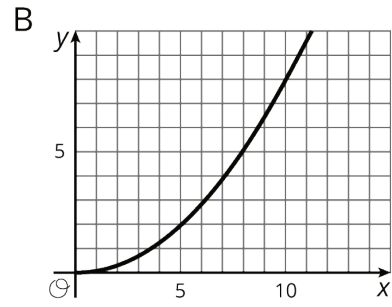c. $15 - 8 = 7$
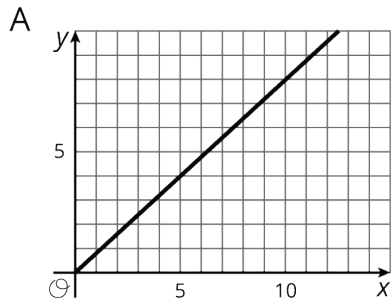
d. $\frac{3}{2} + \frac{9}{5} = \frac{33}{10}$

(from Unit 5, Lesson 5)

6.
Which graphs could not represent a proportional relationship? Explain how you decided.

NAME                                           DATE                    PERIOD

A


B


C


D


(from Unit 2, Lesson 10)