

## ACE Assignment Guide for Problem 3.1



**Core** 1–8, 28–35

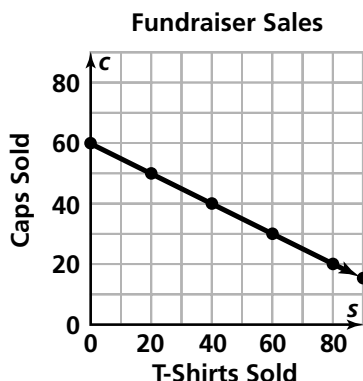
**Other** Unassigned choices from previous problems

**Adapted** For suggestions about adapting Exercise 2 and other ACE exercises, see the *CMP Special Needs Handbook*.

**Connecting to Prior Units** 36–47: *Moving Straight Ahead*

## Answers to Problem 3.1

- A.**  $5s + 10c = 600$  is satisfied by ordered pairs  $(s, c)$  like these:  
 $(0, 60)$ ,  $(20, 50)$ ,  
 $(40, 40)$ ,  $(60, 30)$ ,  
 $(80, 20)$ , and  $(100, 10)$ .  
 Of course, there are many other possibilities.
- B. 1.** The graph (in the first quadrant, which is the only place where the variables make sense for the context) is below.



- 2.** The ordered pairs can be connected and extended in a line. Any point that falls on the line will satisfy the equation.
- C. 1.** Answers will vary. Some possible answers are:  $(6, 1)$ ,  $(7, 2)$ ,  $(8, 3)$ ,  $(9, 4)$ ,  $(5, 0)$ ,  $(0, -5)$ ; check graph for accuracy and other solution pairs.
- 2.** Answers will vary. Some possible answers:  $(0, 10)$ ,  $(1, 9)$ ,  $(2, 8)$ ,  $(4, 6)$ ,  $(10, 0)$ ; check graph for accuracy and other solution pairs.
- 3.** Answers will vary. Some possible answers:  $(0, 3)$ ,  $(\frac{3}{2}, 0)$ ,  $(1, 1)$ ,  $(2, -1)$ ,  $(3, -3)$ ,  $(-2, 7)$ ; check graph for accuracy and other solution pairs.
- 4.** Answers will vary. Some possible answers are:  $(0, -2)$ ,  $(1, -\frac{1}{2})$ ,  $(\frac{4}{3}, 0)$ ,  $(2, 1)$ ,  $(4, 4)$ ,  $(-4, -8)$ ; check graph for accuracy.
- D.** The results suggest that for an equation that looks like  $ax + by = c$ , solutions will be represented by a straight line graph.