# **ACT Preparation Since 1994**

Session #7 Quiz A (1 of 3)
10 Minutes—10 Questions

#### USE THIS AREA FOR FIGURING.

1. Solve for a in terms of b for the given equation:

$$4a + 6b = 2$$

A. 
$$\frac{3}{2}b - \frac{1}{2}$$

**B.** 
$$\frac{1}{2} - \frac{3}{2}b$$

C. 
$$\frac{1}{2}b - \frac{3}{2}$$

**D.** 
$$\frac{3}{2} - \frac{1}{2}b$$

E. 
$$2b - \frac{3}{2}$$

- **2.** A flagpole is 10 feet high and casts a 15 foot shadow. Grant casts a 90 inch shadow. How tall is Grant?
  - F. 5 feet
  - G. 5.5 feet
  - H. 5 inches
  - J. 52 inches
  - K. 6 feet
- 3. A class observed the number of butterflies that visited milkweed and bee balm plants in the school butterfly garden during lunch each day for five days. The following chart represents their observations.

(Note: "R" stands for Thursday)

	· · · · · · · · · · · · · · · · · · ·				
	M	T	W	R	F
Milkweed	7	5	8	8	2
Bee Balm	7	3	2	2	6

What is the median number of butterflies that visited the bee balm during the week?

- A. 2
- **B.** 3
- C. 4
- **D.** 5
- **E.** 6

# Session #7 Quiz A (2 of 3)

## 10 Minutes—10 Questions

#### USE THIS AREA FOR FIGURING.

- 4. What is the measure of an interior angle of a regular pentagon?
  - F. 90°
  - **G.** 108°
  - H. 120°
  - **J.** 180°
  - **K.** 360°
- 5. Given a circle in the standard (x,y) coordinate plane, with the center point (2,3) and a diameter of 8, which of the following could represent a point on the circle?
  - A. (-1,2)
  - **B.** (2,1)
  - **C.** (6,3)
  - **D.** (10,3)
  - E. (7,2)
- 6. When purchasing uniforms for her employees, Renee bought 12 identical shirts for \$138 and 6 identical baseball caps for \$53.70. How much will it cost her company to provide one employee with 2 shirts and 1 cap?
  - **F.** \$15.98
  - **G.** \$20.45
  - **H.** \$23.00
  - **J.** \$28.43
  - **K.** \$31.95
- 7. Which of the following is a possible solution for

$$x^2 - 6x - 16 = 0$$
?

- **A.** -8
- **B.** -2
- **C.** 0
- **D.** 4
- **E**. 6

### Session #7 Quiz A (3 of 3)

# 10 Minutes—10 Questions

### USE THIS AREA FOR FIGURING.

8. The expression (x-5)(x+3) is equivalent to:

**F.** 
$$x^2 - 8x - 15$$

**G.** 
$$x^2 - 2x - 15$$

**H.** 
$$x^2 - 2x + 15$$

**J.** 
$$x^2 + 2x - 15$$

**K.** 
$$x^2 + 8x - 15$$

9. What is the midpoint of a line segment with endpoints of (2,5) and (4,9)?

10. Solve for x in terms of y for the given equation:

$$2(3x+2y) = 12$$

**F.** 
$$3 + 2y$$

**G.** 
$$3y + 2$$

**H.** 
$$6y - \frac{2}{3}$$

**J.** 
$$2 - \frac{2}{3}y$$

**K.** 
$$\frac{3}{2}y + 6$$