CHAPTER 3

NAME _____ DATE _____

SAT/ACT Chapter Test

For use after Chapter 3

1. Solve the system using any algebraic method.

$x + y = 2$
$x - y = 0$

Ⓐ $(-1, -1)$ Ⓑ $(1, 1)$
Ⓒ $(0, 0)$ Ⓓ $(-1, 1)$

2. The ordered pair $(-6, 2)$ is a solution of which system?

Ⓐ $4x - 3y = 7$, $x + y = -4$
Ⓑ $2x - 3y = -18$, $x - y = 8$
Ⓒ $10x + 13y = -34$, $-15x - 17y = 56$
Ⓓ $x + y = 10$, $x - y = -8$

3. How many solutions does the following system have?

$x + y = 4$
$2x + 2y = 8$

Ⓐ no solution
Ⓑ infinitely many solutions
Ⓒ two solutions
Ⓓ one solution

4. How many solutions does the following system have?

$5x - 3y = -4$
$x + 2y = 7$

Ⓐ no solution
Ⓑ infinitely many solutions
Ⓒ two solutions
Ⓓ one solution

5. At which point does the graph of $3x + 5y - x = 15$ cross the y-axis?

Ⓐ $(0, 3, 0)$ Ⓑ $(5, 0, 0)$
Ⓒ $(0, 0, -15)$ Ⓓ $(0, -3, 0)$

6. What geometric figure does the graph of the system form?

$y \leq -\frac{1}{2}x + 2$
$x \geq 0$
$y \geq 0$

Ⓐ square Ⓑ triangle
Ⓒ rectangle Ⓓ rhombus

In Questions 7–9, choose the statement below that is true about the given numbers.

Ⓐ The number in column A is greater.
Ⓑ The number in column B is greater.
Ⓒ The two numbers are equal.
Ⓓ The relationship cannot be determined from the given information.

7.

Column A	*Column B*
$x \geq 2$	$x \geq -2$

Ⓐ Ⓑ Ⓒ Ⓓ

8.

Column A	*Column B*
x-value of the solution of $x + y = 10$, $x - y = 2$	y-value of the solution of $x + y = 10$, $x - y = 2$

Ⓐ Ⓑ Ⓒ Ⓓ

9.

Column A	*Column B*
value of z in $(4, 5, 3)$	value of y in $(-4, 3, 2)$

Ⓐ Ⓑ Ⓒ Ⓓ

Review and Assess