Name _____

2 Readiness Assessment

1. Which of the following equations has a graph with a *y*-intercept of −8?

   A $y = 3x - 8$

   B $y = -8x + 3$

   C $3x - 8y = -5$

   D $-8x + 3y = -5$

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2. Which of the following statements about the graph of $y = 3x - 5$ are true? Select all that apply.

   A   The *y*-intercept is −5.

   B   The *x*-intercept is 3.

   C   (2, 1) is a point on the graph.

   D   As the *x*-values increase, the *y*-values also increase.

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3. Which of the following equations has a graph that passes through (3, 3) and has a slope of −2?

   A $x + 2y = 9$

   B $x - 2y = -3$

   C $2x + y = 9$

   D $-2x + y = -3$

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4. Write an equation in standard form for the line that passes through (3, −1) and (−5, −3).

5. What is an equation for the line that passes through (6, −5) and (−8, 16)?

   A $y = \frac{3}{2}x - 14$ **C** $y = -\frac{3}{2}x - 1$

   B $y = \frac{3}{2}x + 28$ **D** $y = -\frac{3}{2}x + 4$

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6. Solve $|-4x + 9| = 11$. What are the values of *x* that make the equation true? Select all that apply.

   A $x = -\frac{1}{2}$

   B $x = \frac{1}{2}$

   C $x = -5$

   D $x = 5$

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7. Solve $|6x - 1| = 17$.

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8. Solve $-\frac{1}{4}x^2 + 15 = y$ when $x = 2$.

   A $y = \frac{29}{2}$ **B** $y = 18\frac{3}{4}$

   C $y = 14$ **D** $y = 16$

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9. Solve $2x^2 - 23 = y$ when $x = 1$.

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10. Simplify $\sqrt{54}$.

   A $2\sqrt{27}$ **B** $6\sqrt{3}$

   C $3\sqrt{6}$ **D** $9\sqrt{6}$

11. Which of the following expressions are equivalent to $\sqrt{48}$? Select all that apply.

A $2\sqrt{6}$

B $2\sqrt{12}$

C $4\sqrt{3}$

D $4\sqrt{12}$

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12. Multiply $(x - 4)^2$.

A $x^2 - 4x - 16$

B $x^2 - 4x + 16$

C $x^2 - 8x - 16$

D $x^2 - 8x + 16$

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13. Multiply $(2x - 6)(x + 7)$.

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14. Multiply $(x + 5)(x - 5)$.

A $x^2 + 10x - 25$

B $x^2 - 10x - 25$
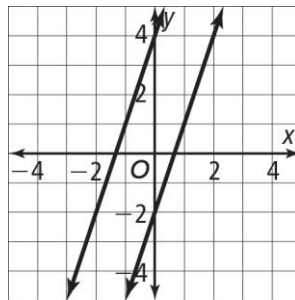
C $x^2 + 25$

D $x^2 - 25$

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15. Solve the system $\begin{cases} y = 2x + 7 \\ 3x + 2y = 7 \end{cases}$ using substitution.

A $(-2, 3)$

B $\left(-\frac{35}{3}, \frac{28}{3}\right)$

C $(-1, 5)$

D $(0, 7)$

16. Solve the system $\begin{cases} 4x + 3y = -2 \\ 2x - 5y = -40 \end{cases}$.

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17. How many solutions does the system of linear equations have?

A   0

B   1

C   2

D   infinitely many

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18. Graph the solution to the system of inequalities $\begin{cases} y \geq -x - 3 \\ y < \frac{1}{2}x - 1 \end{cases}$.