HW#4
Name_____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

Write the slope-intercept form of the equation of the line satisfying the given conditions.

1) Through (3, -3); slope = -4; 1) _____
A) $y = -4x + 9$ B) $y = -4x + 7$ C) $y = 4x + 8$ D) $y = -4x + 10$

2) Through (0, 5); slope = 3 2) _____
A) $y = 3x + 5$ B) $y = -3x + 3$ C) $y = 3x + 10$ D) $y = 3x + 12$

3) Through $(3, 4)$; slope = $-\frac{3}{4}$ 3) _____
A) $y = -\frac{4}{3}x + \frac{25}{4}$ B) $y = -\frac{3}{4}x + \frac{25}{4}$ C) $y = -\frac{3}{4}x + \frac{4}{25}$ D) $y = -\frac{3}{4}x - \frac{25}{4}$

4) Through $(-1, 6)$; horizontal 4) _____
A) $x = -6$ B) $x = -1$ C) $y = 6$ D) $y = 1$

5) Through (8, -4); undefined slope 5) _____
A) $x = 8$ B) $y = -4$ C) $x = -4$ D) $y = 8$

Write the slope-intercept form of the equation for the line passing through the given pair of points.

6) (-3, -2) and (-1, -6) 6) _____
A) $y = -8x - 2$ B) $y = -8x + 2$ C) $y = 2x - 8$ D) $y = -2x - 8$

7) (-9, 5) and (0, -5) 7) _____
A) $y = \frac{10}{9}x - 5$ B) $y = -\frac{14}{5}x - 5$ C) $y = \frac{14}{5}x - 5$ D) $y = -\frac{10}{9}x - 5$

8) (-3, 0) and (2, -9) 8) _____
A) $y = \frac{3}{11}x - \frac{93}{11}$ B) $y = -\frac{3}{11}x - \frac{93}{11}$ C) $y = \frac{9}{5}x - \frac{27}{5}$ D) $y = -\frac{9}{5}x - \frac{27}{5}$

Restate the equation in slope-intercept form.

9) $20x + 2y = 11$ 9) _____
A) $y = 10x + \frac{11}{2}$ B) $y = -10x + \frac{11}{2}$ C) $y = 20x - 11$ D) $y = 10x - \frac{11}{2}$

10) $8x - 4y = 9$ 10) _____
A) $y = 2x + \frac{9}{4}$ B) $y = 2x - \frac{9}{4}$ C) $y = \frac{1}{2}x + \frac{9}{8}$ D) $y = 8x - 9$

Solve by the elimination method.

11) $x + y = 12$ 11) _____
$x - y = -6$
A) {(2, 10)} B) {(-3, 10)} C) No solution D) {(3, 9)}

12) $x - 7y = 19$
$-7x - 8y = 38$ 12) _____

A) No solution B) {(-2, -3)} C) {(2, -2)} D) {(-3, -2)}

13) $x - 6y = 7$
$2x - 5y = 14$ 13) _____

A) {(8, -1)} B) No solution C) {(7, 0)} D) {(8, 7)}

14) $x + 4y = 15$
$7x + y = 16$ 14) _____

A) $\left\{\left(-\frac{49}{27}, -\frac{89}{27}\right)\right\}$ B) $\left\{\left(\frac{49}{27}, \frac{89}{27}\right)\right\}$ C) $\left\{\left(\frac{49}{27}, -\frac{89}{27}\right)\right\}$ D) $\left\{\left(-\frac{49}{29}, -\frac{89}{29}\right)\right\}$

Solve by the substitution method.

15) $x + 8y = 57$
$-2x + 7y = 47$ 15) _____

A) {(1, 7)} B) $\emptyset$ C) {(-1, 8)} D) {(0, 8)}

16) $x - 4y = 4$
$-3x - 3y = 3$ 16) _____

A) {(0, -1)} B) {(1, 0)} C) $\emptyset$ D) {(1, -2)}

17) $-7x + 21 = 7y$
$-5x + 3y = -55$ 17) _____

A) {(8, -4)} B) {(8, -5)} C) $\emptyset$ D) {(7, -4)}

18) $x - 3y = 8$
$x = 4y$ 18) _____

A) {(32 , 8)} B) {(-32 , -8)} C) {(8 ,32)} D) $\left\{\left(\frac{3}{7}, \frac{8}{7}\right)\right\}$

Decide whether the ordered pair is a solution of the given system.

19) (-4, 1)
$x + y = -3$
$x - y = -5$ 19) _____

A) No B) Yes

20) (4, -2)
$x + y = -6$
$x - y = -2$ 20) _____

A) Yes B) No