

Name _____

SYSTEMS OF EQUATIONS #3

Directions: Solve each of the *system of equations* below. Test each possible solution by replacing x and y with each possible solution. The coordinate pair that makes both equations true is the only correct solution. Be careful, some of these systems have *multiple/infinite solutions* and some have *no solution*. Circle the correct answer(s).

Examples: $x + y = 12$

$$2x + y = 16$$

(4,8) is the only solution because

$$4 + 8 = 12 \text{ and}$$

$$2(4) + 8 = 16$$

$$x + y = 20$$

$$4x + 5y = 100$$

(0,20) is the only solution because

$$0 + 20 = 20 \text{ and}$$

$$4(0) + 5(20) = 100$$

1) $5x + 5y = 40$
 $2x + y = 10$

- a) (2,6)
- b) (8,2)
- c) (10,0)

2) $2x + 4y = -84$
 $2x + y = -18$

- a) (0, -19)
- b) (1, -20)
- c) (2, -22)

3) $8x + 4y = 60$
 $2x + y = 15$

- a) (0,15)
- b) (2,11)
- c) (4, 7)

4) $2x - y = 32$
 $2x - (-y) = 16$

- a) (13,-6)
- b) (12, -8)
- c) (11, -10)

5) $-y = -2x + 4$
 $-x + y = -4$

- a) (20,10)
- b) (8,12)
- c) (20,0)

6) $y = 3x + 55$
 $-x + -y = 17$

- a) (-18,1)
- b) (2,6)
- c) (10,12)

7) $2x + y = 26$
 $2x + y = 40$

- a) (0,26)
- b) (8,8)
- c) (10,-4)

8) $-2x + -2y = 32$
 $y = -16 - x$

- a) (40,26)
- b) (30,-46)
- c) (28,-44)

9) $x - y = 8$
 $2x + y = 22$

- a) (11,3)
- b) (10,2)
- c) (6, -2)

10) $-x + -y = -5$
 $2x - y = 1$

- a) (5,0)
- b) (4,1)
- c) (2,3)

11) $-x - (-y) = 9$
 $2x + y = -15$

- a) (6,-3)
- b) (-8,1)
- c) (2,-7)

12) $-x + -y = -16$
 $x + y = 16$

- a) (4,12)
- b) (3,13)
- c) (10,6)

13) $4x + y = 6$
 $y = 10 - 5x$

- a) (4,-10)
- b) (4,-30)
- c) (4,-14)

14) $2x + y = 22$
 $y = 2 - 2x$

- a) (-8,14)
- b) (20,-18)
- c) (40,-38)

15) $2x + y = 8$
 $x + y = 6$

- a) (2,4)
- b) (1,5)
- c) (0,6)

16) $2x + y = 60$
 $2x - y = 44$

- a) (-1,16)
- b) (0,-46)
- c) (26,8)