Name: _____

A.REI.C.6 Solving Linear Systems 2a

1 What is the value of the y-coordinate of the solution to the system of equations $x + 2y = 9$ and $x - y = 3$?
1) 6
2) 2
3) 3
4) 5

2 What is the value of the y-coordinate of the solution to the system of equations $x - 2y = 1$ and $x + 4y = 7$?
1) 1
2) −1
3) 3
4) 4

3 What is the value of x in the solution of the system of equations $3x + 2y = 12$ and $5x - 2y = 4$?
1) 8
2) 2
3) 3
4) 4

4 What is the value of y in the following system of equations?

$$2x + 3y = 6$$

$$2x + y = -2$$

1) 1
2) 2
3) −3
4) 4

5 If $a + 3b = 13$ and $a + b = 5$, the value of b is
1) 1
2) 7
3) 4.5
4) 4

6 If $x + y = -10$ and $x - y = 2$, what is the value of x?
1) −6
2) 6
3) −4
4) 4

7 What is the solution of the system of equations $2x - 5y = 11$ and $-2x + 3y = -9$?
1) $(-3,-1)$
2) $(-1,3)$
3) $(3,-1)$
4) $(3,1)$

8 Which ordered pair is the solution of the following system of equations?

$$3x + 2y = 4$$

$$-2x + 2y = 24$$

1) $(2,-1)$
2) $(2,-5)$
3) $(-4,8)$
4) $(-4,-8)$

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9 What point is the intersection of the graphs of the lines $2x - y = 3$ and $x + y = 3$?

1) $(2,1)$
2) $(1,2)$
3) $(3,0)$
4) $(3,3)$

10 Which ordered pair satisfies the system of equations below?

$$3x - y = 8$$
$$x + y = 2$$

1) $(3,-1)$
2) $(2.5,-0.5)$
3) $(2.5,0.5)$
4) $(5,-3)$

11 The equations $5x + 2y = 48$ and $3x + 2y = 32$ represent the money collected from school concert ticket sales during two class periods. If x represents the cost for each adult ticket and y represents the cost for each student ticket, what is the cost for each adult ticket?

1) \$20
2) \$10
3) \$8
4) \$4

12 Solve the following system of equations algebraically for y:

$$2x + 2y = 9$$
$$2x - y = 3$$

A.REI.C.6 Solving Linear Systems 2a
Answer Section

1 ANS: 2

$x + 2y = 9$

$x - y = 3$

$3y = 6$

$y = 2$

REF: 060925ia

2 ANS: 1

$x - 2y = 1$

$x + 4y = 7$

$-6y = -6$

$y = 1$

REF: 080920ia

3 ANS: 2

$3x + 2y = 12$

$5x - 2y = 4$

$8x = 16$

$x = 2$

REF: 061409ia

4 ANS: 4

$2x + 3y = 6$

$2x + y = -2$

$2y = 8$

$y = 4$

REF: 080013a

5 ANS: 4

$a + 3b = 13$

$a + b = 5$

$2b = 8$

$b = 4$

REF: 080706a

6 ANS: 3

$x + y = -10$

$x - y = 2$

$2x = -8$

$x = -4$

REF: 060824a

7 ANS: 3

$2x - 5y = 11 \quad 2x - 5(-1) = 11$

$-2x + 3y = -9 \qquad 2x = 6$

$-2y = 2 \qquad x = 3$

$y = -1$

REF: 081109ia

8 ANS: 3

$3x + 2y = 4 \quad . \qquad 3x + 2y = 4$

$-2x + 2y = 24 \quad 3(-4) + 2y = 4$

$5x = -20 \quad -12 + 2y = 4$

$x = -4 \qquad y = 8$

REF: 060007a

9 ANS: 1

$2x - y = 3. \; x + y = 3$

$x + y = 3 \quad 2 + y = 3$

$3x = 6 \qquad y = 1$

$x = 2$

REF: 080429a

10 ANS: 2

$3x - y = 8$

$x + y = 2 \qquad 2.5 + y = 2$

$4x = 10 \qquad y = -0.5$

$x = 2.5$

REF: 060716a

11 ANS: 3

$5x + 2y = 48$

$3x + 2y = 32$

$2x = 16$

$x = 8$

REF: fall0708ia

12 ANS:

2. Subtracting the equations: $3y = 6$

$y = 2$

REF: 061231ia