Regents Exam Questions
A.REI.C.5: Solving Linear Systems 1a
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Name: _____

A.REI.C.5 Solving Linear Systems 1a

1 Which system of equations has the same solution as the system below?

$$2x + 2y = 16$$
$$3x - y = 4$$

1) $2x + 2y = 16$
$6x - 2y = 4$
2) $2x + 2y = 16$
$6x - 2y = 8$
3) $x + y = 16$
$3x - y = 4$
4) $6x + 6y = 48$
$6x + 2y = 8$

2 Which pair of equations could not be used to solve the following equations for x and y?

$$4x + 2y = 22$$
$$-2x + 2y = -8$$

1) $4x + 2y = 22$
$2x - 2y = 8$
2) $4x + 2y = 22$
$-4x + 4y = -16$
3) $12x + 6y = 66$
$6x - 6y = 24$
4) $8x + 4y = 44$
$-8x + 8y = -8$

3 A system of equations is given below.

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

Which system of equations does *not* have the same solution?

1) $3x + 6y = 15$
$2x + y = 4$
2) $4x + 8y = 20$
$2x + y = 4$
3) $x + 2y = 5$
$6x + 3y = 12$
4) $x + 2y = 5$
$4x + 2y = 12$

4 What is the value of the y-coordinate of the solution to the system of equations $2x + y = 8$ and $x - 3y = -3$?

1) -2
2) 2
3) 3
4) -3

5 What is the solution of the system of equations below?

$$2x + 3y = 7$$
$$x + y = 3$$

1) (1,2)
2) (2,1)
3) (4,−1)
4) (4,1)

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6 What is the value of A in the following system of equations?

$$2A + 3W = 12$$

$$6A - 5W = 8$$

1) 1
2) 2
3) 3
4) 9

7 The equations $6x + 5y = 300$ and $3x + 7y = 285$ represent the money collected from selling gift baskets in a school fundraising event. If x represents the cost for each snack gift basket and y represents the cost for each chocolate gift basket, what is the cost for each chocolate gift basket?

1) \$20
2) \$25
3) \$30
4) \$54

8 Solve the following system of equations algebraically:

$$3x + 2y = 4$$

$$4x + 3y = 7$$

[Only an algebraic solution can receive full credit.]

9 Albert says that the two systems of equations shown below have the same solutions.

First System	Second System
$8x + 9y = 48$ $12x + 5y = 21$	$8x + 9y = 48$ $-8.5y = -51$

Determine and state whether you agree with Albert. Justify your answer.