

A.REI.C.7: Quadratic-Linear Systems 2

- 1 Solve the following system of equations

algebraically: $y = x^2 + 5x - 17$

$$y = x - 5$$

- 2 Solve the following system of equations algebraically for *all* values of x and y .

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

$$y = 2x + 1$$

- 3 Solve the following system of equations algebraically.

$$y = x^2 + 4x - 2$$

$$y = 2x + 1$$

- 4 Solve the following system of equations algebraically: $y = x^2 - 6x + 9$

$$y = -9x + 19$$

A.REI.C.7: Quadratic-Linear Systems 2**Answer Section**

1 ANS:

$$x^2 + 5x - 17 = x - 5 \quad y = -6 - 5 = -11 \quad (-6, -11), (2, -3)$$

$$x^2 + 4x - 12 = 0 \quad y = 2 - 5 = -3$$

$$(x + 6)(x - 2) = 0$$

$$x = -6, 2$$

REF: 011538ia

2 ANS:

$$(-3, -5), (3, 7). \quad x^2 + 2x - 8 = 2x + 1. \quad y = 2(3) + 1 = 7$$

$$x^2 - 9 = 0 \quad y = 2(-3) + 1 = -5$$

$$x = \pm 3$$

REF: 081236ia

3 ANS:

$$x^2 + 4x - 2 = 2x + 1$$

$$(-3, -5), (1, 3).$$

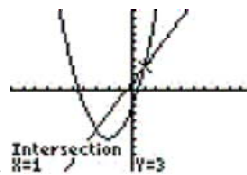
$$x^2 + 2x - 3 = 0$$

$$(x + 3)(x - 1) = 0$$

$$x = -3 \quad x = 1$$

$$y = 2(-3) + 1 = -5.$$

$$= 2(1) + 1 = 3$$



X	Y ₁	Y ₂
-3	-5	-5
1	3	3

X = -3

REF: 080135a

4 ANS:

$$x^2 - 6x + 9 = -9x + 19 \quad y = -9(-5) + 19 = 64 \quad (-5, 64) \text{ and } (2, 1)$$

$$x^2 + 3x - 10 = 0 \quad y = -9(2) + 19 = 1$$

$$(x + 5)(x - 2) = 0$$

$$x = -5, 2$$

REF: 081439ia