

A.REI.C.7: Quadratic-Linear Systems 1

- 1 A quadratic function and a linear function are graphed on the same set of axes. Which situation is *not* possible?
- | | |
|---------------------------------------|--|
| 1) The graphs do not intersect. | 3) The graphs intersect in two points. |
| 2) The graphs intersect in one point. | 4) The graphs intersect in three points. |

- 2 Solve the following systems of equations algebraically for all values of x and y :

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

$$x - y = 5$$

A.REI.C.7: Quadratic-Linear Systems 1 Answer Section

1 ANS: 4



REF: 062216ai

2 ANS:

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

$$x^2 + 4x - 12 = 0 \quad y = -11 \quad y = -3$$

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

$$x = -6, 2$$

REF: fall2305ai