A.REI.C.7: Quadratic-Linear Systems 3

1 The accompanying diagram shows the graphs of a linear equation and a quadratic equation.

How many solutions are there to this system of equations?
1) 1
2) 2
3) 3
4) 0

2 What is the solution of the system of equations graphed below?

\[
\begin{align*}
y &= 2x + 1 \\
y &= x^2 + 2x - 3
\end{align*}
\]

1) (0, -3)
2) (-1, -4)
3) (-3, 0) and (1, 0)
4) (-2, -3) and (2, 5)
3 Which ordered pair is a solution of the system of equations shown in the graph below?

1) $(-3,1)$
2) $(-3,5)$
3) $(0,-1)$
4) $(0,-4)$

4 Two equations were graphed on the set of axes below.

Which point is a solution of the system of equations shown on the graph?
1) $(8,9)$
2) $(5,0)$
3) $(0,3)$
4) $(2,-3)$
5 Which graph could be used to find the solution to the following system of equations? 
\[ y = -x + 2 \]
\[ y = x^2 \]

6 Which graph could be used to find the solution of the system of equations \( y = 2x + 6 \) and 
\[ y = x^2 + 4x + 3 \]?

7 Which graph can be used to find the solution of the following system of equations? 
\[ y = x^2 + 2x + 3 \]
\[ 2y - 2x = 10 \]
8 Which graph could be used to find the solution to the following system of equations?
\[ y = (x + 3)^2 - 1 \]
\[ x + y = 2 \]
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### Answer Section

1. ANS: 2  
   REF: 060507a
2. ANS: 4  
   REF: 011501ge
3. ANS: 2  
   REF: 011012ia
4. ANS: 1  
   REF: 011207ia
5. ANS: 3  
   REF: fall0805ge
6. ANS: 4  
   REF: 011102ia
7. ANS: 1  
   2y - 2x = 10  
   axis of symmetry: \( x = \frac{-b}{2a} = \frac{-2}{2(1)} = -1 \)  
   \[ 2y = 2x + 10 \]  
   \[ y = x + 5 \]  
   REF: 081010ia
8. ANS: 2  
   REF: 061313ge