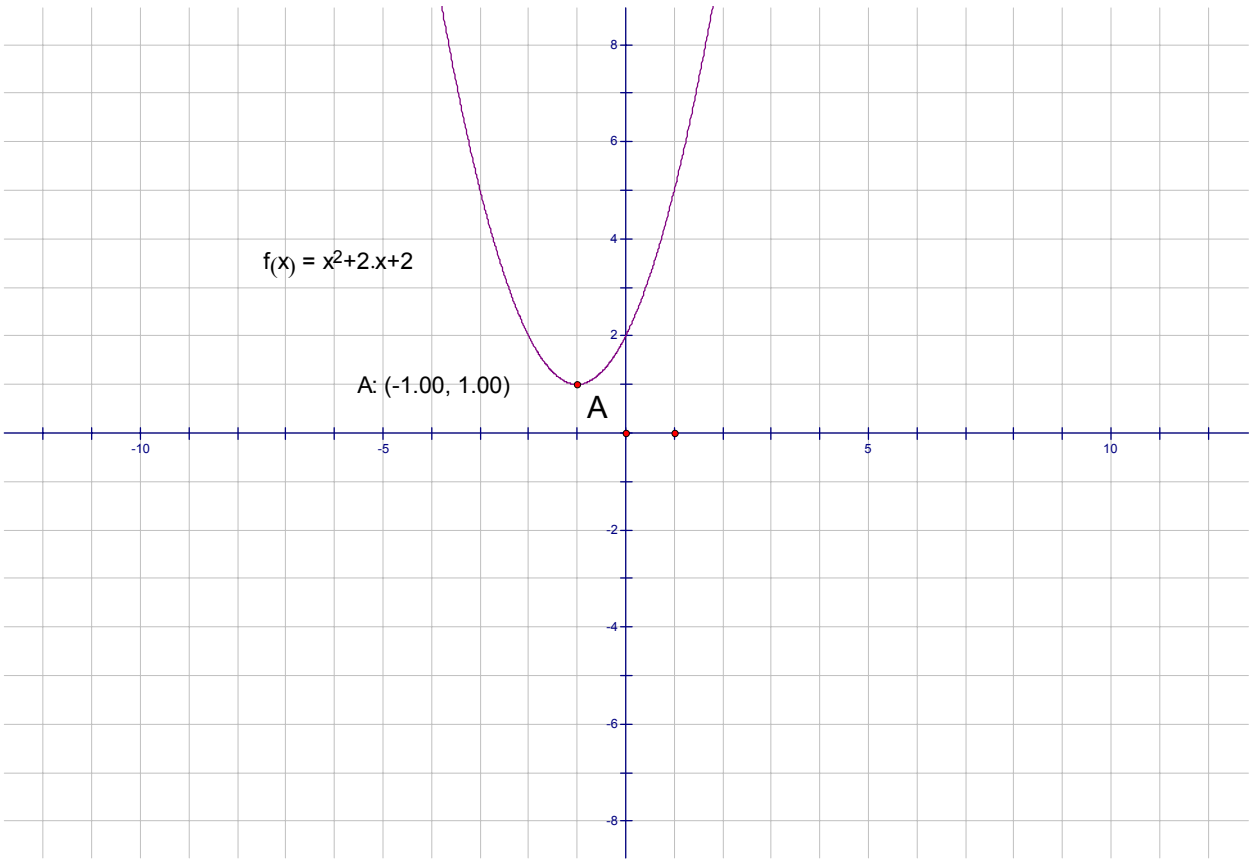
Example: Questions 1-4

Find the vertex of the equation y=x^2 +2x + 2. Verify with a graph.
Make a general statement concerning the four graphs.

Solution:

Vertex is (-1, 1) using the vertex formula –b/2a.



Questions 5-8

Make a general statement concerning these four graphs.

1. $y = x^2 + 2x + 1$

2. $y = x^2 + 2x - 3$

3. $y = x^2 + 2x + 2$

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

5. $y = x^2 + 5x - 1$

6. $y = 2x^2 + 5x - 1$

7. $y = \frac{1}{2}x^2 + 5x - 1$

8. $y = 3x^2 + 5x - 1$