

Do Now:

Write the following quadratic function in vertex form by completing the square. Then state the vertex of the parabola.

$$f(x) = x^2 + 12x - 8$$

$$f(x) = x^2 + 12x + \underline{36} - \underline{8} - \underline{36}$$

$$f(x) = (x+6)^2 - 44$$

Vertex Form

Vertex
(-6, -44)

$$\left(\frac{b}{2}\right)^2$$

$$\left(\frac{12}{2}\right)^2 = 36$$

Apr 12-8:41 AM

Homework Answers

1. D

6. $f(x) = (x-5)^2 - 38$

2. C

(5, -38)

3. Vertex (-1, -8)

7. $f(x) = (x+2)^2 + 4$

AOS $x = -1$

(-2, 4)

4. Vertex (3, -1)

8. $f(x) = (x+6)^2 - 46$

AOS $x = 3$

(-6, -46)

5. Vertex (-6, 0)

9. $f(x) = (x-4)^2 - 8$

AOS $x = -6$

10. $f(x) = (x+2)^2 - 6$

Apr 12-8:44 AM