DO NOW

ALGEBRA 1 · 5 MINUTES · START RIGHT AWAY

Lesson 9-4d **Use Completing the Square to Write a Quadratic Function In Vertex Form**

Name _____ Date _____ Per _____

1 FLUENCY

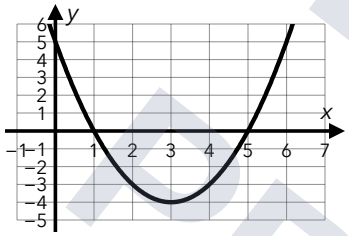
Write the function in vertex form. Then name the vertex.

$y = x^2 + 8x + 10 =$ ☐

Vertex: ☐

2 VISUAL MODEL

The graph shows $y = x^2 - 6x + 5$. Complete the square to write vertex form, then label the vertex on the graph.



$y = (x -$ ☐ $)^2$ ☐

Vertex: ☐

3 APPLICATION

A factory's cost per item is $C = x^2 - 12x + 50$ dollars, where x is hundreds of items made. Use vertex form to find the minimum cost.

$C =$ _____ Min: $ ☐ at ☐ items

WORK

4 REASONING

Ray wrote $y = x^2 + 4x + 1$ as $y = (x + 2)^2 + 1$. Is he correct? Explain.

Yes or **No**

_____

_____

*We don't divide our effort, we **multiply** it!*

✎ Show your work ✓ Check your work ★ Try your best

Preview - the full worksheet and its answer key are at primeworksheet.com