DO NOW

ALGEBRA 2 · 5 MINUTES · START RIGHT AWAY

Lesson 2-6e **Use the Discriminant to Find a Particular Equation**

Name _____ Date _____ Per _____

1 FLUENCY

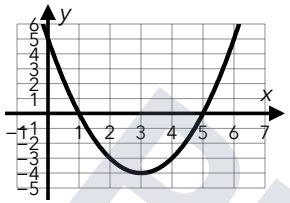
Find all values of k so the equation has exactly one real solution.

$$x^2 + kx + 16 = 0$$

$k^2 - 64 = 0$ $k =$ ☐ or $k =$ ☐

2 VISUAL MODEL

The graph is $y = x^2 - 6x + 5$. For which c does $y = x^2 - 6x + c$ have one x-intercept? none?



One: $c =$ ☐

None: c ☐

3 APPLICATION

A ball is thrown up from 5 ft: $h = -16t^2 + vt + 5$. What is the least launch speed v (ft/s) that lets it reach 41 ft?

$v \geq$ ☐ ft/s

WORK

4 REASONING

Select TWO values of c that give $2x^2 + 8x + c = 0$ two non-real solutions.

(A) $c = 4$ (B) $c = 8$ (C) $c = 9$ (D) $c = 12$

*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