DO NOW

ALGEBRA 2 · 5 MINUTES · START RIGHT AWAY

Lesson 5-6c **Restrict a Domain to Produce an Inverse Function**

Name _____ Date _____ Per _____

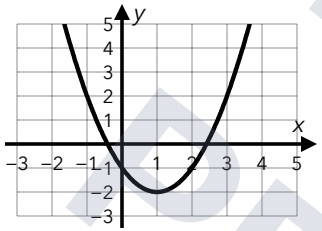
1 FLUENCY

$f(x) = (x - 3)^2$. Restrict the domain to $x \geq 3$ and find $f^{-1}(x)$.

$f^{-1}(x) =$ ☐

2 VISUAL MODEL

$f(x) = (x - 1)^2 - 2$. Draw $y = 2$. Then restrict the domain so f^{-1} is a function.



$y = 2$ hits the graph ☐ times.

Domain: $x \geq$ ☐

3 APPLICATION

A circular rug has area $A(r) = \pi r^2$, where $r \geq 0$. Write the inverse $r(A)$ and find the radius of a 50 ft² rug to the nearest tenth.

$r(A) =$ _____ $r \approx$ ☐ ft

WORK

4 REASONING

$f(x) = x^2 + 4$. Select TWO domain restrictions that make the inverse of f a function.

(A) $x \geq 0$ (B) $x \geq -2$ (C) $x \leq 0$ (D) $-3 \leq x \leq 3$

_____

*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