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GRADE 8 · 5 MINUTES · START RIGHT AWAY

Lesson NJ-2a **Simplify Square Roots with a Perfect Square Factor**

Name _____ Date _____ Per _____

1 FLUENCY

Simplify. Write your answer in simplest radical form.

$\sqrt{45} = \sqrt{9 \cdot 5} = \square\sqrt{\square}$

2 VISUAL MODEL

Write the perfect square factor in each pair (or "none"). Then simplify $\sqrt{48}$.

Pair	Perfect square
$2 \cdot 24$	
$3 \cdot 16$	
$4 \cdot 12$	

Largest: $\square$

$\sqrt{48} = \square\sqrt{\square}$

3 APPLICATION

A square floor tile has an area of 20 square inches. What is the length of one side? Write the exact answer in simplest radical form.

side = $\square\sqrt{\square}$ inches

WORK

4 REASONING

Sam says $\sqrt{18} = 9\sqrt{2}$ because $18 = 9 \cdot 2$. Is he correct? Explain his error and give the correct answer.

Yes or No Correct: $\square\sqrt{\square}$

_____

_____

*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