RADICALS – 2. Evaluate

Name:

Date:

Please remember to show/communicate all your work. You DO NOT need to answer every question, two correct answers at any level will demonstrate a student's level of attainment.

LEGEND						
✓	M	✘	S	N	G	H
correct	mostly correct	incorrect	silly mistake	did not know how to start or skipped	with group	got help

	Mild (🌶🌶)		Medium (🌶🌶🌶)		Spicey (🌶🌶🌶🌶)	
Questions	#1	#2	#3	#4	#5	
Results						

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1. Compete the chart and rank from least (1) to greatest (6).

Rank 1 → 6						
Entire Radical		$\sqrt{\frac{72}{144}}$			$\sqrt{8.5}$	
Mixed Radical (simplest form)	$4\sqrt{2}$		$2\sqrt{5}$	3		$\frac{2\sqrt{6}}{\sqrt{3}}$

2. Simplify the following expressions as much as possible.

a) $3\sqrt{7} + 4\sqrt{28} - \sqrt{20}$

b) $\sqrt{27} - \sqrt{12} + \sqrt{75}$

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3. Simplify the following as much as possible:

$$\left(8\sqrt[3]{2}\right)\left(\frac{1}{2}\sqrt[3]{16}\right)\left(\frac{3}{4}\sqrt[3]{2}\right)$$

4. Using the digits 1-9 at most one time each, form a true statement. Explain some of the steps you took to solving, your initial thoughts/attempts, and include any rough work to help show your thinking.

$$\left(\square\sqrt{\square}\right)\left(\sqrt{\square}\right) = \square\sqrt{\square}$$

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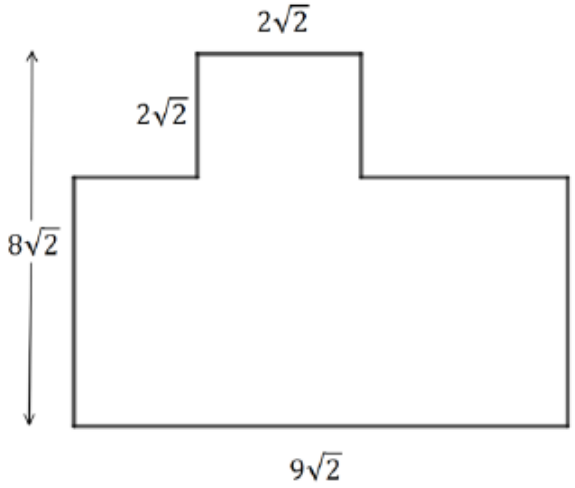
5. Determine:

a) the area



b) the area & the perimeter of this rhombus. (recall Pythagorean theorem)