

1st 5
Simplify

1. $\sqrt{252}$ $\sqrt{36 \cdot 7} = 6\sqrt{7}$

2. $\sqrt{1260}$ $\sqrt{36 \cdot 35} = 6\sqrt{35}$

Numbers Day 3A

Operations with Radical Expressions

- Combining Like Radicals
 - $x + 3x = 4x$
 - $\sqrt{2} + 3\sqrt{2} = 4\sqrt{2}$
 - $3x + 4y$
 $3\sqrt{2} + 4\sqrt{5}$
not like terms
 - $-3\sqrt{5} - 4\sqrt{5} = -7\sqrt{5}$

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Simplifying to Combine Like Radicals

- $7\sqrt{3} - \sqrt{12} = 7\sqrt{3} - 2\sqrt{3} = 5\sqrt{3}$
- $3\sqrt{20} + 2\sqrt{5} = 6\sqrt{5} + 2\sqrt{5} = 8\sqrt{5}$

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Multiplying Two Radicals

- $\sqrt{8} * \sqrt{12} = \sqrt{96} = \sqrt{16 \cdot 6} = 4\sqrt{6}$
- $3\sqrt{2b} * 4\sqrt{10b} = 12\sqrt{20b^2} = 12\sqrt{4b^2 \cdot 5} = 12 \cdot 2b\sqrt{5} = 24b\sqrt{5}$
- $2\sqrt{5a^2} * 6\sqrt{10a^3} = 12\sqrt{50a^5} = 12\sqrt{25a^4 \cdot 2a} = 12 \cdot 5a^2\sqrt{2a} = 60a^2\sqrt{2a}$

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Using the Distributive Property

- Simplify $\sqrt{3}(\sqrt{6} + 7)$
 $\sqrt{18} + 7\sqrt{3} = 3\sqrt{2} + 7\sqrt{3}$
- Simplify $\sqrt{2x}(\sqrt{6x} - 11)$
 $\sqrt{12x^2} - 11\sqrt{2x} = 2x\sqrt{3} - 11\sqrt{2x}$

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2+9am-12

Practice Work # 12 (PW 12)

- Worksheet Adding & Subtracting Radical Expressions

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