

9.1 Simplifying Radical Expressions Operations DAY FOUR with work

9.1 Simplifying Radical Expressions

DAY FOUR: Operations with Radical Expressions

+ - * ÷ +/- exact same

Review: $3x + 5x = x(3 + 5) = 8x$

* ÷ does not matter

Combining like radicals: $3\sqrt{5} + 7\sqrt{5} = \sqrt{5}(3+7) = 10\sqrt{5}$

$$3x + 5x \quad \begin{matrix} 3x + 7x \\ x = \sqrt{5} \end{matrix}$$

Mar 29-11:22 AM

Simplify each.

$$6\sqrt{5} + 2\sqrt{5} - 4\sqrt{5} = \boxed{4\sqrt{5}}$$

$6x + 2x - 4x$
 $x = \sqrt{5}$

$$7\sqrt{2} + 8\sqrt{2} + 9\sqrt{2} - 5\sqrt{2} =$$

$$\begin{matrix} 7x + 8x + 9x - 5x \\ \checkmark \quad \checkmark \\ 15 + 4 \end{matrix}$$

$$\boxed{19\sqrt{2}}$$

9.1 Simplifying Radical Expressions Operations DAY FOUR with work

More Practice: 1 4 9 16 25 36 49 64 81 100
 $7\sqrt{2} + 8\sqrt{11} - 4\sqrt{11} - 6\sqrt{2}$

$7x + 8y - 4y - 6x$

$1\sqrt{2} + 4\sqrt{11}$

$\begin{array}{r} 121 \\ 144 \\ 169 \end{array}$

$6\sqrt{27} + 8\sqrt{12} + 2\sqrt{75}$

$\begin{array}{r} 6\sqrt{3^2 \cdot 3} \\ 8\sqrt{2^2 \cdot 3} \\ 2\sqrt{25 \cdot 3} \end{array}$

$18\sqrt{3} + 16\sqrt{3} + 10\sqrt{3}$

$44\sqrt{3}$

1. Reduce 1st
2. Combine like radicals.

Mar 29-11:23 AM

Find the area of the rectangle.

$A = bh$ $4\sqrt{6} - 2\sqrt{10} = h$

$b = 5\sqrt{3} + 7\sqrt{5}$

$A = (5\sqrt{3} + 7\sqrt{5})(4\sqrt{6} - 2\sqrt{10})$ FOIL

$20\sqrt{18} - 10\sqrt{30} + 28\sqrt{30} - 14\sqrt{50}$

$\begin{array}{r} 20\sqrt{3^2 \cdot 2} \\ + 28\sqrt{3 \cdot 2 \cdot 5} \\ \hline 18\sqrt{30} - 10\sqrt{2} \end{array}$

$60\sqrt{2} + 18\sqrt{30} - 70\sqrt{2}$

$A = [18\sqrt{30} - 10\sqrt{2}] u^2$

Mar 29-11:23 AM

9.1 Simplifying Radical Expressions Operations DAY FOUR with work

HW Assignment 9.1 DAY FOUR

9.1 Study Guide & Intervention

Operations with Radical Expressions WS

(front Add/Subtract Evens &

back Multiply/Distribute Evens)