Radical Practice

Unlimited Practice for Radicals.

NOTE: These are all randomized problems. As a result, it is entirely possible to get pretty awful numbers if you are suitably unlucky. Some of these may look bad until you start doing them, but if you see problems that look excessively awful, remember that you can always hit the 'Another' button in the top (green refresh arrow) to get new numbers. If you find yourself doing this frequently, you may want to discuss it with your TA to see if you have a gap in your understanding, or to see if the problems are just really that bad (in which case the TA will forward the info to the content authors).

Problem   1 *Simplify the following numeric radicals*

- $\sqrt[4]{240} = \boxed{2}\sqrt[4]{15}$

- $\sqrt[4]{3584} = \boxed{4}\sqrt[4]{14}$

- $\sqrt[3]{5184} = \boxed{12}\sqrt[3]{3}$

- $\sqrt[2]{450} = \boxed{5}\sqrt[2]{18}$

Problem   2 *Simplify the following radical. Make sure there are **no fractions** in the resulting radicand, and all exponents are **positive**.*

- $\sqrt[5]{y^{15}z^3} = \boxed{y^3}\sqrt[5]{\boxed{z^3}}$

- $\sqrt[4]{\dfrac{z^{15}}{x^9y^4}} = \boxed{\dfrac{z^3}{x^3|y|}}\sqrt[4]{\boxed{x^3z^3}}$

- $\sqrt[4]{\dfrac{y^7}{x^2z^{10}}} = \boxed{\dfrac{y}{xz^3}}\sqrt[4]{\boxed{x^2y^3z^2}}$

- $\sqrt[2]{\dfrac{x^9}{y^2z^7}} = \boxed{\dfrac{x^4}{z^4|y|}}\sqrt[2]{\boxed{xz}}$

Learning outcomes: