M10 - 4.5 - Fraction Exponents HW

Change from radical/root form to exponential form.

$\sqrt[5]{3^2} =$

$\sqrt[2]{3^5} =$

$\sqrt{5} =$

$\sqrt[3]{x^4} =$

$\sqrt[4]{(-7)^3} =$

$\sqrt[2]{2^7} =$

$\sqrt{6} =$

$\sqrt[2]{x^5} =$

Change from exponential form to radical/root form. Simplify if possible.

$-3^{\frac{2}{3}} =$

$16^{\frac{3}{4}} =$

$81^{\frac{5}{4}} =$

$(-5)^{\frac{2}{3}} =$

$9^{\left(\frac{5}{2}\right)} =$

$(-125)^{\left(\frac{5}{3}\right)} =$

$(-5)^{\frac{3}{2}} =$

Simplify by exponents laws. Answer in root form.

$3^{\frac{1}{3}} \times 3^{\frac{1}{2}} =$

$5^{\frac{1}{2}} \times 5^{\frac{1}{4}} =$

$7^{\frac{3}{8}} \times 7^{\frac{3}{4}} =$

$6^{\frac{3}{2}} \div 6^{\frac{1}{4}} =$

$\dfrac{2^{\frac{1}{4}}}{2^{-\frac{1}{2}}} =$

$\dfrac{5^{\frac{5}{2}}}{5^{\frac{4}{4}}} =$

$\left(5^{\frac{2}{3}}\right)^{\frac{1}{4}} =$

$\left(7^{\frac{1}{2}}\right)^3 =$

$(5^{0.5})^{\frac{1}{3}} =$