

Math 2 Unit 8 Prevention/Intervention
No Scientific Calculators!!

Simplify the expressions $\frac{a^8b^{-5}}{ab^{-3}}$ $\frac{a^7b^{-8}}{ab^{-4}}$

Simplify the expressions by eliminating the roots (Write in exponential form)

$$\sqrt[3]{x^{\frac{6}{7}}}$$

$$\sqrt[5]{x^{\frac{10}{13}}}$$

Simplify the expressions by eliminating the roots. (Write in exponential form)

$$7^{\frac{1}{6}} \cdot \sqrt[3]{7^2}$$

$$3^{\frac{2}{5}} \cdot \sqrt[10]{3^5}$$

Simplify.

$$(5 + 2\sqrt{7}) - (3 - 9\sqrt{7})$$

$$(9 + 3\sqrt{13}) - (4 - 11\sqrt{13})$$

Simplify the expressions

$$(2x^{\frac{1}{3}})^6$$

$$(3x^{\frac{1}{2}})^4$$

	Rational	Irrational
$\sqrt{49} + 9 =$		
$2\sqrt{5} + 7\sqrt{5} =$		
$\sqrt{5} \cdot \sqrt{4} =$		
$(7 + 5\sqrt{2}) - (4 + 5\sqrt{2}) =$		
$\sqrt{36} \cdot 2 =$		
$\sqrt{16} \cdot \sqrt{3} =$		

Simplify

$$25^{\frac{3}{2}}$$

$$27^{\frac{2}{3}}$$

Simplify

$$7x^{10}y^3(-3x^{-4})^2y^5$$

$$5x^{15}y^3(-2x^{-6})^2y^3$$

Simplify

$$\frac{14m^6n^2p^{-5}}{2m^{-3}n^9p^{-9}}$$

$$\frac{27m^7n^2p^{-5}}{3m^{-3}n^8p^{-7}}$$

Simplify

$$h^{-5}k^8(h^3k^{-2})^3$$

$$h^5k^{10}(h^{-1}k^{-2})^3$$

Simplify and express answer in **radical form**.

$$5^{\frac{1}{2}} \cdot 5^{\frac{2}{5}}$$

$$3^{\frac{1}{3}} \cdot 3^{\frac{2}{5}}$$

Solve for the value of x.

$$\sqrt[5]{25^2} \cdot \sqrt[5]{25^4} = 25^{\frac{x}{5}}$$

$$\sqrt[4]{16^3} \cdot \sqrt[4]{16^2} = 16^{\frac{x}{4}}$$

$$\frac{5^{\frac{4}{5}}}{10\sqrt{5^2}} = 5^{\frac{x}{5}}$$

$$\frac{3^{\frac{7}{8}}}{16\sqrt{3^2}} = 3^{\frac{x}{8}}$$

$$\sqrt[5]{7^{\frac{1}{2}}} = 7^{\frac{1}{x}}$$

$$\sqrt[7]{3^{\frac{1}{3}}} = 3^{\frac{1}{x}}$$