

Review...

Negative Exponents...

$$5^{-2} = \left(\frac{1}{5}\right)^2 \text{ or } \frac{1}{5^2}$$
$$= \frac{1}{25}$$

$$\frac{1}{2^{-3}} = 2^3$$
$$= 8$$

$$\left(\frac{-8}{27}\right)^{\frac{2}{3}} = \left(-\frac{27}{8}\right)^{\frac{2}{3}}$$
$$= \left(-\frac{3}{2}\right)^2$$
$$= \frac{9}{4}$$

Simplify each radical to a mixed radical.

4 9 16 25	$\sqrt{18} \rightarrow 3 \times 6$ $\sqrt{9 \times 2}$ $3\sqrt{2}$	$\sqrt[3]{48}$ $\sqrt[3]{8 \times 6}$ $2\sqrt[3]{6}$	$3\sqrt{50}$ $3\sqrt{25 \times 2}$ $15\sqrt{2}$
	$3 \times 3 \times 2$	$\sqrt[3]{12 \times 4}$ $6 \times 2 \times 2 \times 2$ $3 \times 2 \times 2 \times 2 \times 2$ $2\sqrt[3]{6}$	$3\sqrt{2 \cdot 5 \cdot 5}$ $15\sqrt{2}$

Write each mixed radical as an entire radical.

$3\sqrt{5}$	$4\sqrt[3]{3}$	$2\sqrt[4]{6}$
$\frac{\sqrt{3^2 \times 5}}{\sqrt{45}}$	$\frac{\sqrt[3]{4^3 \times 3}}{\sqrt[3]{192}}$	$\frac{\sqrt[4]{2^4 \times 6}}{\sqrt[4]{96}}$

$$\sqrt{48} \quad \sqrt{16 \times 3}$$

$$\begin{aligned} &\sqrt{6 \times 8} \\ &3 \times 2 \times 4 \times 2 \\ &\sqrt{3 \times 2 \times 2 \times 2 \times 2} \\ &4\sqrt{3} \end{aligned}$$

$$\sqrt[3]{1088}$$

$$\begin{aligned} &16 \times 68 \\ &8 \times 2 \times 4 \times 17 \\ &2 \times 4 \times 2 \times 2 \times 2 \times 17 \\ &2 \times 2 \times 2 \times 2 \times 2 \times 17 \\ &4\sqrt[3]{17} \end{aligned}$$

$$\sqrt[3]{15 \times 15 \times 15 \times 3}$$
$$15\sqrt[3]{3}$$

$$\sqrt[3]{* \cdot * \cdot * \cdot \ddot{}} \quad \ddot{\cdot}$$

$$* \sqrt[3]{\ddot{}}$$

$$\begin{aligned}\sqrt{200} \\ &= \sqrt{100 \times 2} \\ &= 10\sqrt{2}\end{aligned}$$



$$\begin{aligned}\sqrt{25 \times 8} \\ 5\sqrt{4 \times 2} \\ 5 \times 2 \sqrt{2} \\ 10\sqrt{2}\end{aligned}$$

8
27
64
~~125~~

$$\begin{aligned} \sqrt[3]{432} &= \sqrt[3]{27 \times 16} \\ &= 3 \sqrt[3]{8 \times 2} \\ &= 3 \times 2 \sqrt[3]{2} \\ &= 6 \sqrt[3]{2} \end{aligned}$$

$$\begin{aligned} \sqrt[3]{12 \times 36} &= \sqrt[3]{2 \times 6 \times 6 \times 6} \\ &= 2 \times 2 \times 3 \times 2 \times 3 \times 2 \times 3 \\ &= (2 \cdot 2 \cdot 2) \cdot (3 \cdot 3 \cdot 3) \\ &\rightarrow 6 \sqrt[3]{2} \end{aligned}$$

Homework Section 4.5

FPCM 10:

Page 233: #3 TO #14

Page 234: #15 TO #17ab and #18 TO #20

QUIZ PREPARATION for Friday:

Review for Sections 4.2 & 4.3

FPCM 10:

Page 221: #1, #3, #4, #6a, #7b, #8, #9 & #11

QUIZ PREPARATION for Monday:

Review for Sections 4.4 & 4.5

FPCM 10:

Page 236: #1 to #8 (ALL!)