type quiz answer in clicker

#32

$$(4\sqrt{3} + 3\sqrt{2})(4\sqrt{3} - 3\sqrt{2})$$

$12.5 > 2$

$\sqrt{2}$ $\quad$ 2

$$\sqrt{\frac{12}{25}} = \frac{\sqrt{12}}{\sqrt{25}} = \frac{2\sqrt{3}}{5}$$

$2^2 \cdot 3$

rationalize the denom.

$$\sqrt{\frac{5}{3}} = \frac{\sqrt{5}}{\sqrt{3}} \cdot \frac{\sqrt{3}}{\sqrt{3}} = \frac{\sqrt{15}}{3}$$

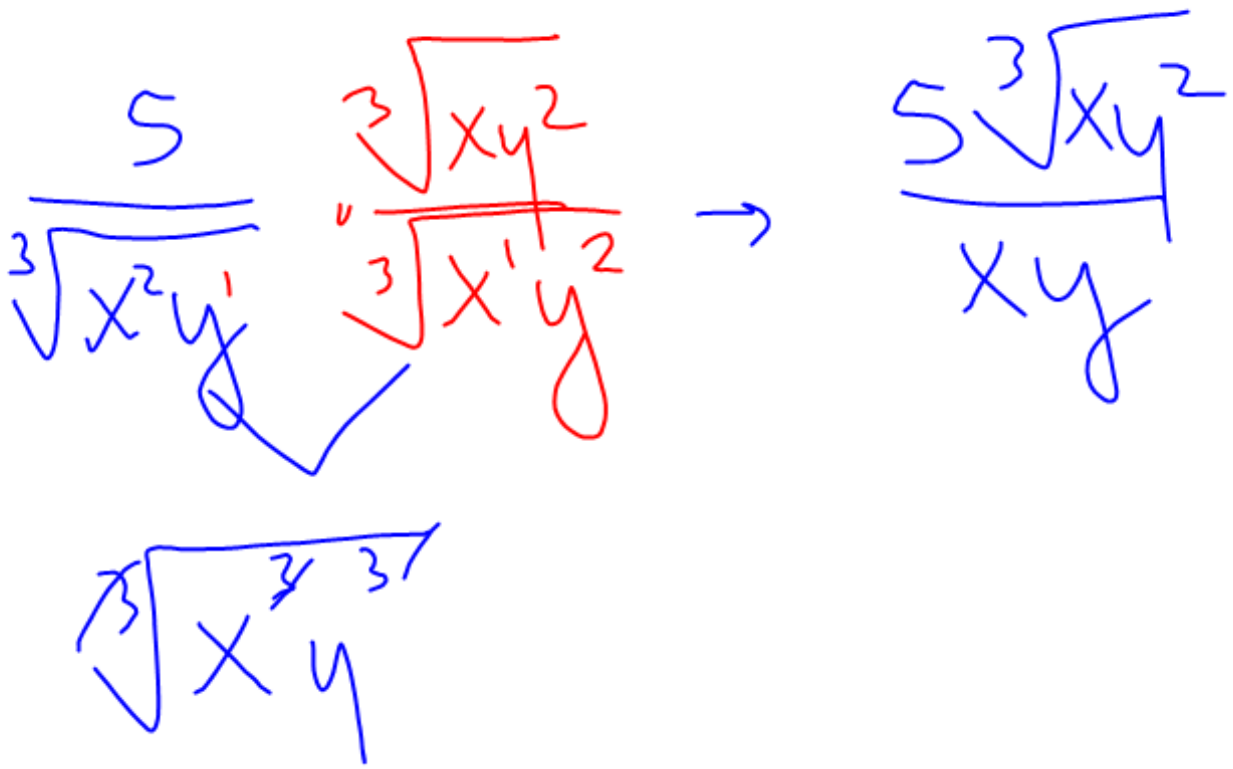
43. $\dfrac{9}{\sqrt{3y}} \cdot \dfrac{\sqrt{3y}}{\sqrt{3y}} = \dfrac{9\sqrt{3y}}{3y} \rightarrow \dfrac{3\sqrt{3y}}{y}$

$\sqrt[x]{3^x y^x}$

45. $\dfrac{1}{\sqrt[3]{2}}$

$\dfrac{1}{\sqrt[3]{2^1}} \cdot \dfrac{\sqrt[3]{2^2}}{\sqrt[3]{2^2}} \rightarrow \dfrac{\sqrt[3]{4}}{2}$

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


5
$\sqrt[3]{x^2y^1}$
$\sqrt[3]{xy^2}$
$\sqrt[3]{x^1y^2}$
$\sqrt[3]{x^3y^3}$
$\frac{5\sqrt[3]{xy^2}}{xy}$

$\sqrt{2}$

47. $\dfrac{6}{\sqrt[3]{4}}$

49. $\sqrt[3]{\dfrac{2}{3}}$

Rationalize the denominator

$\sqrt[3]{\dfrac{2}{3}} \div \dfrac{\sqrt[3]{2}}{\sqrt[3]{3}} \cdot \dfrac{\sqrt[3]{3^2}}{\sqrt[3]{3^2}}$

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

$\dfrac{\sqrt[3]{18}}{3}$

$\dfrac{6}{\sqrt[3]{4}}$

$\dfrac{6}{\sqrt[3]{2^2}} \cdot \dfrac{\sqrt[3]{2}}{\sqrt[3]{2^1}} \rightarrow \dfrac{\sqrt[3]{6}\sqrt[3]{2}}{2} \rightarrow 3\sqrt[3]{2}$

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

$$\frac{6}{\sqrt[3]{4^1}}\ \frac{\sqrt[3]{4^2}}{\sqrt[3]{4^2}} \rightarrow \frac{6\sqrt[3]{16}}{4}$$

$$2\overline{)16}\quad 2\overline{)8}\quad 2\overline{)4}\quad 2$$

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

$$\frac{6\sqrt[3]{2^3}2}{4}$$

$$\frac{3\cancel{2}\sqrt[3]{2}}{\cancel{4}} \rightarrow \frac{3\sqrt[3]{2}}{2}$$

61. $\dfrac{6}{\sqrt[5]{8x^3}} \cdot \dfrac{\sqrt[5]{2^2x^2}}{\sqrt[5]{2^2x^2}} \rightarrow \dfrac{3\sqrt[5]{4x^2}}{2x}$

$8 = 2^3$

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

$\dfrac{3\sqrt[5]{4x^2}}{x}$

69. $\sqrt{\dfrac{7m^2n^3}{14m^3n^2}} \rightarrow \sqrt{\dfrac{1\,n}{2m}}$

$\dfrac{\sqrt{n}}{\sqrt{2m}} \dfrac{\sqrt{2m}}{\sqrt{2m}} = \dfrac{\sqrt{2mn}}{2m}$

$$\frac{1}{(3+\sqrt{5})}\cdot\frac{(3-\sqrt{5})}{(3-\sqrt{5})} \rightarrow \frac{3-\sqrt{5}}{9-5}$$

$$\frac{3-\sqrt{5}}{4}$$

rationalize the den.

$$\frac{\sqrt{5}}{\sqrt{6}-\sqrt{3}}\cdot\frac{(\sqrt{6}+\sqrt{3})}{(\sqrt{6}+\sqrt{3})} \rightarrow \frac{\sqrt{30}+\sqrt{15}}{6-3}$$

$$\frac{\sqrt{30}+\sqrt{15}}{3}$$

$$\frac{4+6\sqrt{3}}{8} \rightarrow \frac{2(2+3\sqrt{3})}{2(4)}$$

rationalize the denominator

85. $\dfrac{\sqrt{5}+\sqrt{3}}{\sqrt{5}-\sqrt{3}} \cdot \dfrac{\sqrt{5}+\sqrt{3}}{\sqrt{5}+\sqrt{3}}$

$$\frac{5+2\sqrt{15}+3}{5-3} \rightarrow \frac{8+2\sqrt{15}}{2}$$

$$\frac{2(4+\sqrt{15})}{2} \rightarrow 4+\sqrt{15}$$

$$(4+\sqrt{15})(\sqrt{5}-\sqrt{3})$$

$$4\sqrt{5}-4\sqrt{3}+\sqrt{3}\cdot 5^2-\sqrt{3}\cdot 5$$

$$4\sqrt{5}-4\sqrt{3}+5\sqrt{3}-3\sqrt{5}$$

$$\sqrt{5}+\sqrt{3}$$

89. $\dfrac{(5\sqrt{3} - 3\sqrt{2})(3\sqrt{2} + 2\sqrt{3})}{(3\sqrt{2} - 2\sqrt{3})(3\sqrt{2} + 2\sqrt{3})}$

$\dfrac{15\sqrt{6} + 10 \cdot 3 - 9 \cdot 2 - 6\sqrt{6}}{9 \cdot 2 - 4 \cdot 3}$

$\dfrac{12 + 9\sqrt{6}}{6} \rightarrow \dfrac{3(4 + 3\sqrt{6})}{3 \cdot 2} \rightarrow \dfrac{4 + 3\sqrt{6}}{2}$

$\dfrac{4 + 3\sqrt{6}}{2}$

$\dfrac{24 + 3}{12} \rightarrow \dfrac{7}{2}$

109. $\frac{\sqrt{6}}{1} - \sqrt{\frac{1}{6}} + \sqrt{\frac{2}{3}}$

$\frac{\sqrt{6}}{1} - \frac{\sqrt{1}\sqrt{6}}{\sqrt{6}\sqrt{6}} + \frac{\sqrt{2}\sqrt{3}}{\sqrt{3}\sqrt{3}}$

$\frac{6\cdot\sqrt{6}}{6\cdot 1} + \frac{-1\sqrt{6}}{6} + \frac{2\sqrt{6}}{2\cdot 3}$

$\frac{7\sqrt{6}}{6}$

$$\frac{10}{2} = 5$$

$$5 \cdot 2 = 10$$