



$$\sqrt{80b^2}$$

$$\begin{array}{r} 1 \phantom{0} \\ 40 \phantom{0} \\ 1 \phantom{0} \\ 20 \phantom{0} \\ 1 \phantom{0} \\ 10 \phantom{0} \\ 5 \phantom{0} \end{array}$$

$$2 \cdot 2 \cdot b \sqrt{5}$$

$$\boxed{4b\sqrt{5}}$$

$$\left(\frac{a^{-3}}{b^2}\right)^4 = \frac{a^{-3 \cdot 4}}{b^{2 \cdot 4}} = \frac{a^{-12}}{b^8}$$

$$= \boxed{\frac{1}{a^{12} \cdot b^8}}$$

$$7^{-2} \cdot 7^6 = 7^{-2+6} = 7^4$$

$$3\sqrt{5a} \cdot 8\sqrt{35a^2} = 24\sqrt{35a^2 \cdot 5a} = 24 \cdot 5 \cdot a \sqrt{7a}$$

$$\begin{array}{r} 1 \phantom{0} \\ 7 \phantom{0} \\ 1 \phantom{0} \\ 5 \phantom{0} \end{array}$$

$$\boxed{120a\sqrt{7a}}$$

$$\sqrt[3]{1728} = \boxed{12}$$

$$\sqrt{\frac{25}{196}} = \boxed{\frac{5}{14}}$$

$$\sqrt{8x^3y^2}$$

$$\begin{array}{r} 1 \phantom{0} \\ 2 \phantom{0} \\ 1 \phantom{0} \end{array}$$

$$\boxed{2xy\sqrt{2x}}$$

$$\sqrt[3]{1000} = \boxed{10}$$

$$\sqrt{4.84} = \boxed{2.2}$$

$$\sqrt{2a} \cdot \sqrt{14a^3} \cdot \sqrt{5a} = \sqrt{14a^3 \cdot 5a \cdot 2a} = \sqrt{14a^3 \cdot 10a^2}$$

$$\begin{array}{c} \swarrow \searrow \\ a \quad a \end{array} a \quad \begin{array}{c} \swarrow \searrow \\ a \quad a \end{array}$$



$$a^2 \sqrt{14a \cdot 10}$$

$$\begin{array}{c} \swarrow \searrow \\ 7 \quad 2 \end{array} \quad \begin{array}{c} \swarrow \searrow \\ 2 \quad 5 \end{array}$$

$$2a^2 \sqrt{7a \cdot 5}$$

$$2a^2 \sqrt{35a}$$

$$\sqrt{56z^7}$$

$$\begin{array}{c} \swarrow \searrow \\ 8 \quad 7 \end{array}$$

$$\begin{array}{c} \swarrow \searrow \\ 2 \quad 4 \end{array}$$

$$\begin{array}{c} \swarrow \searrow \\ z \quad z \end{array}$$

$$\begin{array}{c} \swarrow \searrow \\ z^2 \quad z^2 \end{array}$$

$$\begin{array}{c} \swarrow \searrow \\ z^3 \end{array}$$

$$2 \cdot z^3 \sqrt{2 \cdot z \cdot 7}$$

$$2z^3 \sqrt{14z}$$

$$(5^4 \cdot b^{-10})^{-6} = 5^{4 \cdot -6} \cdot b^{-10 \cdot -6} = 5^{-24} \cdot b^{60} = \frac{b^{60}}{5^{24}}$$

$$\sqrt{72z^5} = \sqrt{2^3 \cdot 3^2 \cdot z^4 \cdot z} = 2^1 \cdot 3^1 \cdot z^2 \sqrt{2z} = 6z^2 \sqrt{2z}$$

$$\frac{2^5}{6^5} = \frac{1}{3}$$