

1. Show that $5\frac{1}{3}$ is equal to $\sqrt[3]{5}$ by cubing each expression. Show your work in detail.

$$\left(5\frac{1}{3}\right)^3 = \left(\frac{16}{3}\right)^3 = \frac{4096}{9}$$

$$\sqrt[3]{5} = (5)^3 = 125$$

$$\begin{array}{r} 3 \\ 16 \\ \times 16 \\ \hline 96 \\ 16 \\ \hline 256 \\ \times 16 \\ \hline 1536 \\ 256 \\ \hline 4096 \end{array}$$

NOTE: I kind of need help understanding.

2. Show that $x\frac{1}{3}$ is equal to $\sqrt[3]{x}$ by cubing each expression. Show your work in detail.

$$\begin{array}{c} x = 1 \\ \left(x\frac{1}{3}\right)^3 = \left(\frac{4}{3}\right)^3 = \frac{64}{9} = \end{array}$$

$$\begin{array}{r} 2 \\ 16 \\ \times 4 \\ \hline 64 \end{array}$$

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