

8.1 - Solving Ratios

Solving Ratios

A. When the variable is in the numerator (on top)

example 1

$$\begin{aligned}\frac{x^3}{3} &= \frac{7^3}{9} \\ x &= \frac{7(3)}{9} \\ &= 2.3\end{aligned}$$

example 2

$$\begin{aligned}\frac{15^2}{23} &= \frac{h^2}{2} \\ \frac{15(2)}{23} &= h \\ 1.3 &\doteq h\end{aligned}$$

B. When the variable is in the denominator (on bottom)

example 1

$$\frac{15}{a} = \frac{7}{2}$$

cross multiply

$$\frac{7(a)}{7} = \frac{15(2)}{7}$$

$$a \doteq 4.3$$

example 2

$$\frac{14}{27} = \frac{3}{b}$$

$$\frac{14(b)}{14} = \frac{27(3)}{14}$$

$$b \doteq 5.8$$