

Ratios:

A. Number Sense uses ratios in a variety of ways. With ratios you simply write an expression and solve for the missing variable.

Ex [1] 5 is to 8 as 3 is to _____.

a. When working with ratios, it is easier to think in terms of fractions.

b. So $\frac{5}{8} = \frac{3}{x}$. Simplifying this equation we get $5x = 24$.

c. Solving for x we get $\frac{24}{5}$.

d. The answer is $\frac{24}{5}$.

Ex [2] 25 is to 100 as what is to 16? _____.

a. Think of this as $\frac{25}{100} = \frac{x}{16}$.

b. Simplifying this expression we get $(16)(25) = 100x$.

c. This equals $400 = 100x$. See [Multiplying by 25](#).

d. $x = 4$.

e. The answer is 4.