

Post 1

For this discussion, you can choose a metric conversion or a US conversion. This example shows a US conversion.

Note: This is NOT one of the US conversions that can be used for this discussion. The example does show the process that you will use in converting within the US system.

Post 1 Example

NOTE: Not all parts of the Discussion are included in this Example. Read the Discussion Question thoroughly and respond to all parts of the Question.

I am converting 1072 teaspoons to cups. Unit fractions and dimensional analysis is used to complete the conversion from one to another, so I used it here to convert from teaspoons to cups. The unit fractions show the conversion step-by-step from teaspoons to tablespoons to cups as required.

I know that there are 3 teaspoons in a tablespoon and 16 tablespoons in a cup. Using that information, I calculated the number of cups as follows:

$$\begin{aligned} & 1072 \text{ teaspoons} \times \frac{1 \text{ tablespoons}}{3 \text{ teaspoons}} \times \frac{1 \text{ cup}}{16 \text{ tablespoons}} \\ &= \frac{1072 \cancel{\text{teaspoons}}}{1} \times \frac{1 \cancel{\text{tablespoons}}}{3 \cancel{\text{teaspoons}}} \times \frac{1 \text{ cup}}{16 \cancel{\text{tablespoons}}} \\ &= \frac{1072 \text{ cups}}{3 \cdot 16} \end{aligned}$$

Reduce the fraction by dividing 16 out of the numerator and denominator.

$$\begin{aligned} &= \frac{67 \text{ cups}}{3} \\ &= 22 \frac{1}{3} \text{ cups} \end{aligned}$$

Therefore 1072 teaspoons converts to $22 \frac{1}{3}$ cups.