

# Homework 1

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For a review of how to convert units, check out <https://youtu.be/XKCZn5MLKvk>

**Example 1.** Suppose there are 200 apples in one bushel. Convert 2 apples to bushels.

Note that

$$200 \text{ apples} = 1 \text{ bushel} \tag{1}$$

This will be used to determine our conversion factor later.

Start by writing the quantity and units we want to convert on the left and the units we want converted into on the right like this:

$$2 \text{ apples} \cdot \frac{\text{conversion factor}}{\text{conversion factor}} = ? \text{ bushels}$$

To determine the conversion factor, look at Eq. 1 above. The units ‘apples’ have to go in the bottom of the fraction since that’s what we’re converting *from*.

So we have

$$2 \text{ apples} \cdot \frac{1 \text{ bushel}}{200 \text{ apples}} = ? \text{ bushels}$$

Performing the multiplication, we find  $2 \text{ apples} = 0.01 \text{ bushels}$ .

**Problem 1.** Suppose there are 19 crows in a murder. Convert 2 crows to murders.

**Problem 2.** Suppose there are 41 Sickles in a Galleon. Convert 20 Sickles to Galleons.

**Problem 3.** Suppose there are 154 pounds of lumber in a chord. Convert 3 chords to pounds of lumber.

**Problem 4.** Suppose there are 34 parrots in a pandemonium. Convert 4 pandemoniums to parrots.