Lesson 3.6g

More Word Problems

Objectives	**California Standards**
Solve word problems that involve finding the whole when given the value of a fractional part.	**NS 1.5:** Explain different interpretations of fractions, for example, parts of a whole, parts of a set, and division of whole numbers by whole numbers; explain equivalence of fractions. **MR 1.0:** Students make decisions about how to approach problems. **MR 2.0:** Students use strategies, skills, and concepts in finding solutions. **MR 3.0:** Students move beyond a particular problem by generalizing to other situations.

Teaching Strategies

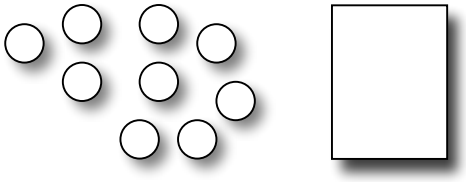
Find a fractional part or a whole when given another fractional part

Display or draw 9 objects, such as discs.

Tell students that there are more, but we do not know how many more; the rest are hidden. You can draw a box or square to indicate the ones that are hidden.

Tell students that we do know that the 9 we can see make up $\frac{3}{5}$ of the objects.

Ask students how many total discs there are, and then ask how we can show this with a diagram.



Lead them to see that they can draw a bar divided into 5 equal parts, each representing one-fifth. We know that 9 objects are three-fifths of the total. We can find what each fifth is, and then what the total is.

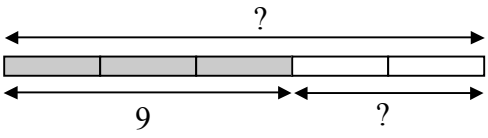
To find the number of objects that are hidden, we can use either of the following methods:

Once we find the total, we can find the number of hidden objects by subtraction:

15 – 9 = 6

Or, once we find the value of 1 unit, we can find the value of 2 units by multiplication:

2 units = 3 x 2 = 6



$\frac{3}{5}$ of the total (3 units) = 9

$\frac{1}{5}$ of the total (1 unit) = 9 ÷ 3 = 3

$\frac{5}{5}$ of the total (5 units) = 3 × 5 = 15

$\frac{2}{5}$ of the total (2 units) = 3 × 2 = 6