

5.1a

Equal Groups

Objectives

- ◆ Write multiplication equations for equal groups.
- ◆ Use repeated addition to evaluate a multiplication equation.

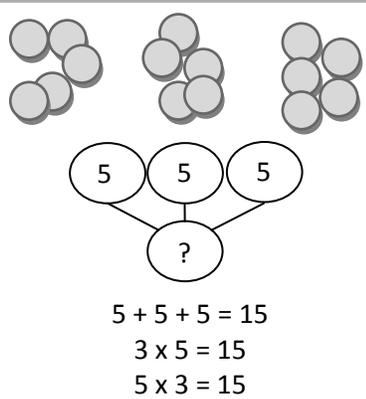
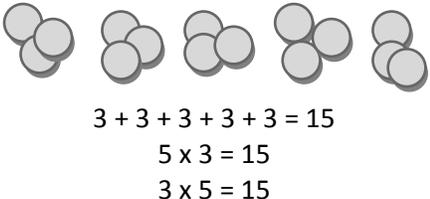
Vocabulary

- ◆ Equal groups
- ◆ Of

Note

Students have previously written 3×5 for *3 groups of 5*. They will now learn that it can also be written 5×3 . You can make it into an English sentence, such as, *5 in 3 groups*, or *5 multiplied by 3*, as in the next lesson, but ultimately, the equation can simply be read as *three times five* regardless of the situation it is describing.

Students will probably find answers by simply counting on from the amount in the first group if the problem supplies a picture. Encourage them to add repeatedly using mental math.

<p>Equal groups</p> <p>Show students some objects arranged in 3 equal groups of 5. You can use counters or multilink cubes or draw them on the board.</p> <p>Ask students how many groups there are and how many counters there are in each group. Point out that these are <i>equal groups</i>.</p> <p>Draw a number bond with 3 parts. Ask students how we can find the total number. We can add: $5 + 5 + 5 = 15$. 5 and 5 is 10, then 10 and 5 is 15.</p> <p>Ask students if they remember the symbol we can use when we add equal groups. It is the multiplication symbol, "x." Tell them we write 3×5 for <i>3 groups of 5</i> or <i>3 of fives</i> or <i>3 fives</i>, or we can write 5×3 for <i>5 in 3 groups</i>. As with addition, it does not matter what order we write the 5 and the 3.</p>	
<p>Repeat, this time with 5 groups of 3. Students should see that the answer is the same as with 3 groups of 5. The multiplication equations used are also the same, and it does not matter which number is written first.</p>	
<p>Discussion</p> <p>Discuss textbook p. 76 and the top of p. 77. Note that the girl thinks "$3 \times 4 = 12$" and the boy thinks "$4 \times 3 = 12$" for 3 groups of 4. Both are correct.</p> <p>Tasks 1 and 2: Encourage students to add mentally, rather than count on one by one.</p>	<p>Text pp. 76-77</p> <p>There are 12 apples altogether.</p> <ol style="list-style-type: none"> 20 30