LESSON 7 Multiplication by 3 *Use the Doubles Fact, Add One More Group*

Prepare

Watch Lesson 7 video

Read Lesson 7 instruction

Study the example problems

Materials

- Integer blocks (3-block, 4-block, 6-block, 7-block, 8-block)
- Math Facts Strategy Posters (P9)
- Fact Check Cards (Lesson 7)

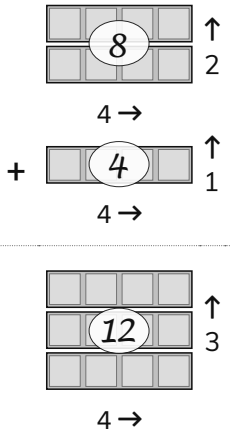
Teaching Tip

What is a group?
In this lesson, the term *group* refers to one group of the factor that is being multiplied by 3.
To find the product of 4 × 3, use the known doubles fact 4 × 2, then add one more group of the factor 4 (or 4 × 1) to find the product.

Session A: Present Lesson Instruction

In this lesson, your student will use their knowledge of the doubles facts (mastered in Lesson 3) as a springboard to learn the remaining facts with 3 as a factor. Multiplication by 3 is the same as tripling a number. Tripling is the same as doubling a factor, plus one more group of that factor. For example, to find the product of 4 × 3, your student can think, "double four, plus one more group of four equals 12." This can effectively be demonstrated with the blocks.

Example 1
4 × 3



Use the doubles fact. 4 × 2 = 8

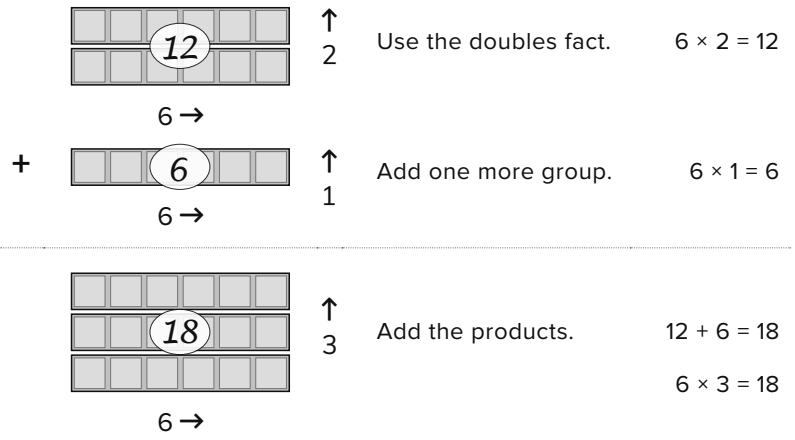
Add one more group. 4 × 1 = 4

Add the products. 8 + 4 = 12

4 × 3 = 12

When teaching this strategy, make a point of first building the doubles fact; then remind your student that tripling is the same as just adding one more group of the factor that you doubled. This will help your student see the relationship between the multiplication by 3 facts and the doubles facts.

Example 2
6 × 3



Use the Commutative Property to teach the companion facts. Continue to encourage your student to rewrite the factors that the dimensions represent when they rotate the model 90°, as this will reinforce that when the order of the factors is changed, the product remains the same.

Take a break before Session B.

Session B: Demonstrate Understanding

See AIM Lesson Roadmap: Session B on page 12 for instructions and tips.

First, check that your student can proficiently teach back a few key facts and their companion facts *before* moving on to the word problems.

Next, use the Build, Write, Say method to solve each word problem. Label the factors and product with the units they represent in each problem (e.g., minutes, chores).

1. Fernando scored six 3-point shots during his basketball game. How many total points did he earn from 3-point baskets?
2. Three families in our neighborhood have three children each. How many children is that in all?
3. Kati ordered a new shelf that needs to be assembled. The box included three bags of screws, each containing seven screws. How many screws are needed to assemble the shelf?
4. Alex was told that he could play eight minutes of video games for each chore he completed. Alex finished three chores. How many minutes of playing video games did he earn?
5. Ada has three hamsters. She feeds each of them four sunflower seeds a day. How many total sunflower seeds does she feed her hamsters each day?

Take a break before Session C.

Session B: Digital Resources (Lesson 7)

- Student copy of Word Problems
- Word Problem Solutions
- Build, Write, Say Activities

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Session C: Digital Resources (Lesson 7)

- Fading Solutions
- Review Activities

Session C: Transition Math Facts to Visual Memory

See AIM Lesson Roadmap: Session C on page 12 for instructions and tips.

Can your student draw, write, and say the math facts from this lesson?

YES Celebrate! Set the Facts Known aside.

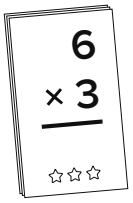
NO Continue to practice the Facts Not Yet Known.

Take a break before Session D.

Session D: Digital Resources (Lesson 7)

- Review Activities
- Fast Fact Check-Ins
- Multiplication Facts Mastery Chart

Session D: Assess for Mastery



See AIM Lesson Roadmap: Session D on page 13 for instructions and tips.

Can your student recall the facts covered in the lesson?

YES Fill in one star for each Fact Known.

NO Continue to practice the Facts Not Yet Known.

Repeat the steps in Session D until all three stars are filled in on the Fact Check Cards for the lesson. (Take as many sessions as needed.)

Before moving to the next lesson, be sure:

- ◯ All Fact Check Cards from the lesson have three stars filled in.
- ◯ Each Fact Known has been marked on the Multiplication Facts Mastery Chart.

Lesson 7 Math Facts | **Key Fact** | **Companion Fact** | Review Facts Known

2 × 2	2 × 3	2 × 4	2 × 5	2 × 6	2 × 7	2 × 8	2 × 9	2 × 10
3 × 2	**3 × 3**	**3 × 4**	3 × 5	**3 × 6**	**3 × 7**	**3 × 8**	3 × 9	3 × 10
4 × 2	**4 × 3**	4 × 4	4 × 5	4 × 6	4 × 7	4 × 8	4 × 9	4 × 10
5 × 2	5 × 3	5 × 4	5 × 5	5 × 6	5 × 7	5 × 8	5 × 9	5 × 10
6 × 2	**6 × 3**	6 × 4	6 × 5	6 × 6	6 × 7	6 × 8	6 × 9	6 × 10
7 × 2	**7 × 3**	7 × 4	7 × 5	7 × 6	7 × 7	7 × 8	7 × 9	7 × 10
8 × 2	**8 × 3**	8 × 4	8 × 5	8 × 6	8 × 7	8 × 8	8 × 9	8 × 10
9 × 2	9 × 3	9 × 4	9 × 5	9 × 6	9 × 7	9 × 8	9 × 9	9 × 10
10 × 2	10 × 3	10 × 4	10 × 5	10 × 6	10 × 7	10 × 8	10 × 9	10 × 10