

Grade 3 Properties of Multiplication Lesson 4: Distributive Property of Multiplication PART 2

Rationale: Today's lesson teaches students to use the Distributive property to solve a multiplication problem. **Please teach this lesson before you teach PROPERTIES & EXTENDING MULTIPLICATION STRATEGIES UNIT.

Objective: I can multiply the 1-digit factor by the value in the tens and ones place, then add to solve.

AND

I can multiply the sum of 2 numbers OR I can multiply the factor by each addend to get the same product.

Vocabulary: distributive property, multiplication, product

Materials: Dry erase boards, Copy of the Must Do worksheet

Lesson:

1. Tell students, "You have been breaking numbers apart and putting them back together for many years. Remember how you can break a number into its place value, which can make it easier to add or subtract?" Ask students to give an example of this. (ie. $64 + 13$ can be decomposed into $60 + 4$ and $10 + 3$; $60+10=70$ and $4+3=7$; therefore the sum is 77).

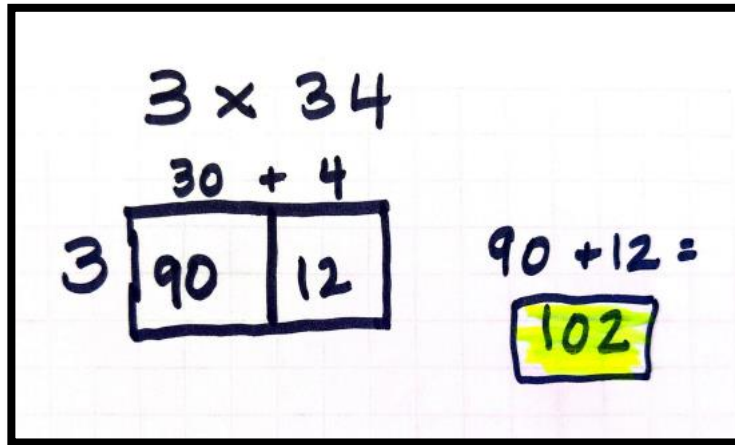
2.. Project and discuss with students why the Distributive Property works:

$$\begin{array}{ccc} & \underline{3} \times 34 = 102 & \\ & \swarrow \quad \searrow & \\ \underline{3} \times 30 = 90 & & \underline{3} \times 4 = 12 \end{array}$$

Remember:
The VALUE of
the digit 3 in
the number 34
is 30.

$$90 + 12 = 102$$

3. Have students practice drawing an area model to solve.



4. Project: Have students pick a problem to solve on dry erase boards. Have a partner check the work as they ensure they are breaking apart numbers, multiplying, and adding them back together using an AREA MODEL. Repeat with a few more problems.

Directions: Solve each problem by multiplying the 1-digit factor by the value in the tens and ones place. Then add to solve.

$2 \times 35 = \underline{\quad}$	$3 \times 26 = \underline{\quad}$	$4 \times 53 = \underline{\quad}$
$4 \times 32 = \underline{\quad}$	$3 \times 82 = \underline{\quad}$	$5 \times 65 = \underline{\quad}$

8. Must Do