

GRADE 3: Multiply 2-digit x 1 digit – Divide 2-digit by 1-digit

The goal is for students to develop computational fluency, learning a variety of strategies to use to solve problems. Students will look at the numbers involved in the problem and will then decide on a method that best fits the situation. The following are some of the strategies for solving multiplication/division problems in third grade. The majority of these strategies help students develop a strong sense of number and number relationships which are very important life skills. Students still need to memorize their basic multiplication facts to increase accuracy.

MULTIPLICATION

LANDMARK MULTIPLES LIKE 10, 100:

- $5 \times 10 = 50$
- $7 \times 100 = 700$

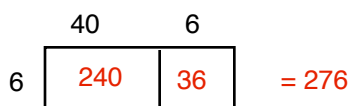
DIVISION

LANDMARK MULTIPLES LIKE 10, 100:

- $50 \div 10 = 5$
- $200 \div 10 = 20$

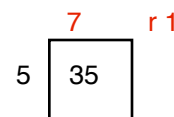
ARRAYS: Students decompose (break apart) the numbers into easier numbers (landmark numbers) and then compose (put together) the partial products. They will decompose numbers in a variety of ways. Below are examples for decomposing. Using place value to decompose leads directly to the “traditional” algorithm. The difference between multiplication and division is which “piece” is missing. For multiplication, the answer is the area (inside) the array. For division, the answer is the missing factor (top dimension) of the array.

Solve 46×6 :



$$\begin{array}{r} 40 \times 6 = 240 \\ 6 \times 6 = +36 \\ \hline 276 \end{array}$$

Solve $36 \div 5$:



Know that $5 \times 7 = 35$ and there's one more so the answer is 7 r1.

These strategies are developed in the following unit(s) in our curriculum:

- Mathematical Thinking, Things That Come In Groups, Landmarks in the Hundreds, Fair Shares.