

NAME: _____

DATE: _____

BLOCK: _____

Multiplication and Division of Whole Numbers

Unlike addition and subtraction, you do **not** have to line up the numbers that have the same place value when performing the operations of multiplication or division.

Multiplication question:	Division question:
$\begin{array}{r} 325 \\ \times 15 \\ \hline 4875 \end{array}$ <p>← multiplicand ← multiplier ← PRODUCT</p>	$\begin{array}{r} \text{QUOTIENT} \rightarrow 707 \text{ R}1 \leftarrow \text{remainder} \\ 2 \overline{)1415} \leftarrow \text{dividend} \\ \underline{140} \\ 1 \\ \underline{0} \\ 15 \\ \underline{14} \\ 1 \end{array}$ <p>divisor</p>

Example #1: Calculate the product of 47 and 104.

$$\begin{array}{r} 104 \\ \times 47 \\ \hline 728 \\ + 4160 \\ \hline 4888 \end{array}$$

$$\begin{array}{r} 348 \\ \times 23 \\ \hline 1044 \\ + 6960 \\ \hline 8004 \end{array}$$

Answer to a multiplication question

Example #2: Calculate the quotient when 1462 is divided by 3.

Handwritten work for Example #2:

Long Division: $3 \overline{)1462}$

Subtraction steps:

$$\begin{array}{r} 1462 \\ -12 \\ \hline 26 \\ -24 \\ \hline 22 \\ -21 \\ \hline 1 \end{array}$$

Quotient: $487 \text{ R } 1$

Multiplication check:

$$\begin{array}{r} 487 \\ \times 3 \\ \hline 1461 \\ + 1 \\ \hline 1462 \end{array}$$

Annotation: "answer to a division question" points to the quotient $487 \text{ R } 1$.

Your Turn!

Handwritten multiplication:

$$\begin{array}{r} 123 \\ \times 35 \\ \hline 615 \\ + 3690 \\ \hline 4305 \end{array}$$

Handwritten long division:

Divisor: 3, Dividend: 2524

Subtraction steps:

$$\begin{array}{r} 2524 \\ -24 \\ \hline 12 \\ -12 \\ \hline 04 \\ -3 \\ \hline 1 \end{array}$$

Quotient: $841 \text{ R } 1$