

Multiplication with Regrouping

The diagram illustrates the multiplication of 25 by 9. The numbers are written in a standard vertical format: 25 on top, 9 below it, and a horizontal line. The product 225 is shown below the line. Annotations include: a green arrow labeled 'Step 2' pointing to the 4 in the tens place of the product; a blue arrow labeled 'Step 3' pointing to the 22 in the tens and hundreds places; and a red arrow labeled 'Step 1' pointing to the 5 in the ones place. A red box highlights the 5 in the ones place of the multiplicand and the 5 in the ones place of the product. A blue box highlights the 22 in the tens and hundreds places of the product.

Step 1:
*Multiply digits in the ones place

Step 2:
*Regroup to tens place

Step 3:
*Multiply digit in tens place by digit in ones place
*Add digit that was regrouped

2-digit by 1-digit Multiplication

$$\begin{array}{r} 32 \\ \times 3 \\ \hline 96 \end{array}$$

No
regrouping/carry

$$\begin{array}{r} {}^2 67 \\ \times 3 \\ \hline 201 \end{array}$$

With
regrouping/carry