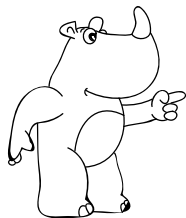# Multiplication with Regrouping

Multiplication with regrouping is the easiest way to multiply by large numbers.
Follow the steps below to learn how.

-First, multiply the numbers in the ones place.

-Write your result in the ones place and carry any number in the tens place forward.

-Next, multiply the number in the tens place by the bottom number in the ones place.

-Add the extra number you carried over to your result and write this number in the tens place.

Example:

Multiply the ones place.
$$\begin{array}{r} 17 \\ \times\ 3 \\ \hline 1 \end{array}$$
7 x 3 = 21

Carry the 2 to the tens place.
$$\begin{array}{r} {}^2 17 \\ \times\ 3 \\ \hline 1 \end{array}$$

Multiply the tens place by the bottom ones place.
$$\begin{array}{r} {}^2 17 \\ \times\ 3 \\ \hline 1 \end{array}$$
1 x 3 = 3

Add the extra 2 and write your result.
$$\begin{array}{r} {}^2 17 \\ \times\ 3 \\ \hline 51 \end{array}$$
3 + 2 = 5

For each problem below, follow the steps used in the example to find your solution.
Be sure to show all of your work.

1) $\begin{array}{r} 24 \\ \times\ 3 \\ \hline \end{array}$
5) $\begin{array}{r} 13 \\ \times\ 4 \\ \hline \end{array}$
9) $\begin{array}{r} 12 \\ \times\ 5 \\ \hline \end{array}$
13) $\begin{array}{r} 19 \\ \times\ 3 \\ \hline \end{array}$
17) $\begin{array}{r} 14 \\ \times\ 4 \\ \hline \end{array}$
21) $\begin{array}{r} 15 \\ \times\ 6 \\ \hline \end{array}$

2) $\begin{array}{r} 16 \\ \times\ 4 \\ \hline \end{array}$
6) $\begin{array}{r} 38 \\ \times\ 2 \\ \hline \end{array}$
10) $\begin{array}{r} 29 \\ \times\ 3 \\ \hline \end{array}$
14) $\begin{array}{r} 24 \\ \times\ 4 \\ \hline \end{array}$
18) $\begin{array}{r} 28 \\ \times\ 4 \\ \hline \end{array}$
22) $\begin{array}{r} 17 \\ \times\ 8 \\ \hline \end{array}$

3) $\begin{array}{r} 16 \\ \times\ 2 \\ \hline \end{array}$
7) $\begin{array}{r} 35 \\ \times\ 2 \\ \hline \end{array}$
11) $\begin{array}{r} 18 \\ \times\ 4 \\ \hline \end{array}$
15) $\begin{array}{r} 27 \\ \times\ 2 \\ \hline \end{array}$
19) $\begin{array}{r} 13 \\ \times\ 7 \\ \hline \end{array}$
23) $\begin{array}{r} 12 \\ \times\ 7 \\ \hline \end{array}$

4) $\begin{array}{r} 25 \\ \times\ 2 \\ \hline \end{array}$
8) $\begin{array}{r} 17 \\ \times\ 4 \\ \hline \end{array}$
12) $\begin{array}{r} 36 \\ \times\ 2 \\ \hline \end{array}$
16) $\begin{array}{r} 18 \\ \times\ 3 \\ \hline \end{array}$
20) $\begin{array}{r} 24 \\ \times\ 5 \\ \hline \end{array}$
24) $\begin{array}{r} 72 \\ \times\ 9 \\ \hline \end{array}$