

Multiplying Multi-Digit Numbers

Step 1
Multiply by the
ones digit.

$$\begin{array}{r} 2 \\ 872 \\ \times 494 \\ \hline 3,488 \end{array}$$

$$4 \times 872 = 3,488$$

Step 2
Multiply by the
tens digit.

$$\begin{array}{r} 61 \\ 872 \\ \times 494 \\ \hline 3,488 \\ 78,480 \end{array}$$

$$90 \times 872 = 78,480$$

Step 3
Multiply by the
hundreds digit.

$$\begin{array}{r} 2 \\ 872 \\ \times 494 \\ \hline 3,488 \\ 78,480 \\ 348,800 \end{array}$$

$$400 \times 872 = 348,800$$

Step 4
Add.

$$\begin{array}{r} 872 \\ \times 494 \\ \hline 3,488 \\ 78,480 \\ + 348,800 \\ \hline 430,768 \end{array}$$

Multiply.

1. $\begin{array}{r} 762 \\ \times 381 \\ \hline \end{array}$

2. $\begin{array}{r} 503 \\ \times 741 \\ \hline \end{array}$

3. $\begin{array}{r} 638 \\ \times 897 \\ \hline \end{array}$

4. $\begin{array}{r} 982 \\ \times 872 \\ \hline \end{array}$

5. $\begin{array}{r} 594 \\ \times 439 \\ \hline \end{array}$

6. $\begin{array}{r} 287 \\ \times 287 \\ \hline \end{array}$

7. $\begin{array}{r} 758 \\ \times 439 \\ \hline \end{array}$

8. $\begin{array}{r} 165 \\ \times 825 \\ \hline \end{array}$

9. $\begin{array}{r} 284 \\ \times 833 \\ \hline \end{array}$

10. $\begin{array}{r} 477 \\ \times 360 \\ \hline \end{array}$

Dividing Multi-Digit Numbers

Divide $32 \overline{)7,980}$

Step 1

There are not enough thousands to divide. Estimate to place the first digit in the quotient.

Use rounding to estimate.

Think: $30 \overline{)80}$
 $80 \div 30$ is about 2

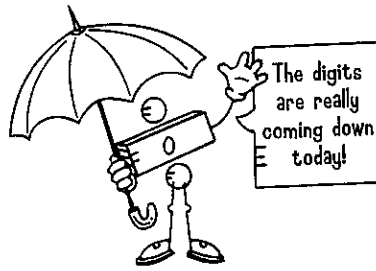
The first digit of the quotient will be in the hundreds place. - - - - -

Step 2

Multiply. Subtract. Compare. Bring down the next digit.

$$\begin{array}{r} \rightarrow 2 \\ 32 \overline{)7,980} \\ \underline{-64} \\ 158 \end{array}$$

Multiply 2×32
Subtract $79 - 64$
Compare $15 < 32$
Bring down the 8.



Step 3

Multiply. Subtract. Compare. Bring down the next digit.

$$\begin{array}{r} 249r12 \\ 32 \overline{)7,980} \\ \underline{-64} \\ 158 \\ \underline{-128} \\ 300 \\ \underline{-288} \\ 12 \end{array}$$

Multiply 4×32
Subtract $158 - 128$
Compare $30 < 32$
Bring down the 0.
(Repeat steps.)
The remainder must always be less than the divisor.

Divide.

1. $46 \overline{)857}$

2. $28 \overline{)635}$

3. $32 \overline{)8,329}$

4. $55 \overline{)1,728}$

5. $21 \overline{)4,670}$

6. $17 \overline{)4,287}$

7. $58 \overline{)2,439}$

8. $73 \overline{)8,967}$

