Multiplication in columns

3 digits × 2 digits

Name: _____ Date: _____

Multiply by the ones and then the tens. Align by place value and add.

1.

816 × 37

Ones row _____

Tens row _____

Total _____

2.

809 × 84

Ones row _____

Tens row _____

Total _____

3.

892 × 53

Ones row _____

Tens row _____

Total _____

4.

685 × 25

Ones row _____

Tens row _____

Total _____

5.

858 × 95

Ones row _____

Tens row _____

Total _____

6.

990 × 50

Ones row _____

Tens row _____

Total _____

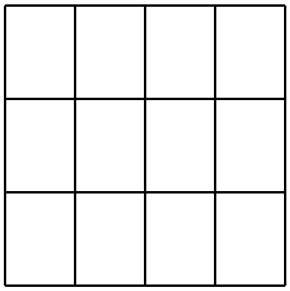
Area models

Name _____ Date _____

Mark the first fraction in rows and the second in columns. Count the overlap.

Mark rows with short horizontal dashes and columns with vertical dashes. Count cells with both.

Q1 $\frac{2}{3} \times \frac{3}{4}$



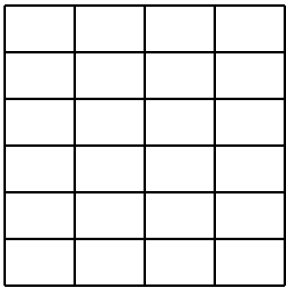
Overlap cells _____

Total cells _____

Fraction of one whole _____

Simplest form _____

Q2 $\frac{5}{6} \times \frac{1}{4}$



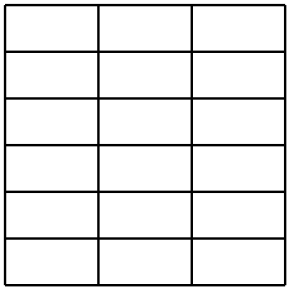
Overlap cells _____

Total cells _____

Fraction of one whole _____

Simplest form _____

Q3 $\frac{5}{6} \times \frac{2}{3}$



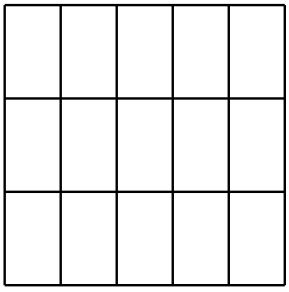
Overlap cells _____

Total cells _____

Fraction of one whole _____

Simplest form _____

Q4 $\frac{1}{3} \times \frac{2}{5}$



Overlap cells _____

Total cells _____

Fraction of one whole _____

Simplest form _____

Multiplication in columns — Key

3 digits × 2 digits

Use the matching edition. Other correct methods are valid.

Multiply by the ones, then by the tens. Add the two partial products.

1.

$$\begin{array}{r} 816 \\ \times\ 37 \\ \hline 5712 \\ +\ 24480 \\ \hline 30192 \end{array}$$

816 × 37 = 30,192

2.

$$\begin{array}{r} 809 \\ \times\ 84 \\ \hline 3236 \\ +\ 64720 \\ \hline 67956 \end{array}$$

809 × 84 = 67,956

3.

$$\begin{array}{r} 892 \\ \times\ 53 \\ \hline 2676 \\ +\ 44600 \\ \hline 47276 \end{array}$$

892 × 53 = 47,276

4.

$$\begin{array}{r} 685 \\ \times\ 25 \\ \hline 3425 \\ +\ 13700 \\ \hline 17125 \end{array}$$

685 × 25 = 17,125

5.

$$\begin{array}{r} 858 \\ \times\ 95 \\ \hline 4290 \\ +\ 77220 \\ \hline 81510 \end{array}$$

858 × 95 = 81,510

6.

$$\begin{array}{r} 990 \\ \times\ 50 \\ \hline 0 \\ +\ 49500 \\ \hline 49500 \end{array}$$

990 × 50 = 49,500

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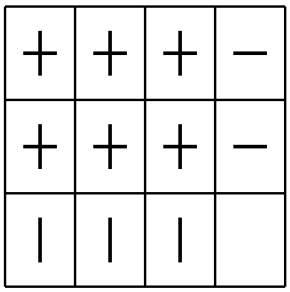
Area models

Use the raw product to check the multiplication before reducing.

Mark the first fraction in rows and the second in columns. Count the overlap.

Mark rows with short horizontal dashes and columns with vertical dashes. Count cells with both.

Q1 $\frac{2}{3} \times \frac{3}{4}$



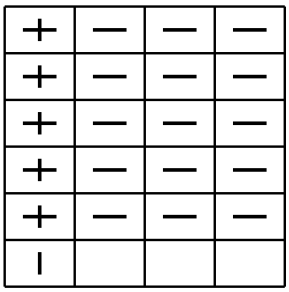
2 rows × 3 columns overlap

6 of 12 equal cells

Raw product 6/12

Simplest form 1/2

Q2 $\frac{5}{6} \times \frac{1}{4}$



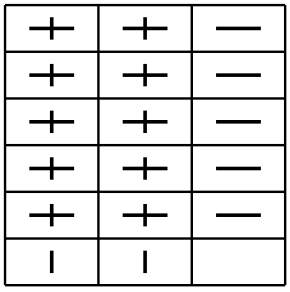
5 rows × 1 column overlap

5 of 24 equal cells

Raw product 5/24

Simplest form 5/24

Q3 $\frac{5}{6} \times \frac{2}{3}$



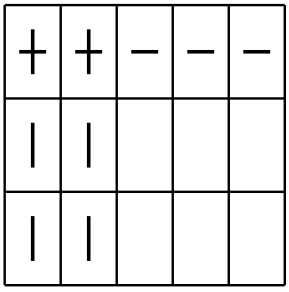
5 rows × 2 columns overlap

10 of 18 equal cells

Raw product 10/18

Simplest form 5/9

Q4 $\frac{1}{3} \times \frac{2}{5}$



1 row × 2 columns overlap

2 of 15 equal cells

Raw product 2/15

Simplest form 2/15