

Multiplication Widget Proofs

Table method and column method across whole-number partitioning, decimal products, zero partials, and multi-digit factors.

Table / box method

2 by 2 whole numbers

×	30	6
20	600	120
5	150	30

3 by 2 whole numbers

×	400	20	5
30	12000	600	150
2	800	40	10

decimal products supplied

×	3	0.6
5	15	3
0.4	1.2	0.24

mixed place values

×	200	40	7
60	12000	2400	420
8	1600	320	56

larger grid

×	3000	400	20	5
70	210000	28000	1400	350
6	18000	2400	120	30

scale check

×	30	6
20	600	120
5	150	30

Column multiplication

two by two digits

$$\begin{array}{r} 36 \\ \times 25 \\ \hline 180 \\ + 720 \\ \hline 900 \end{array}$$

36×5
 36×20

three by two digits

$$\begin{array}{r} 425 \\ \times 32 \\ \hline 850 \\ + 12750 \\ \hline 13600 \end{array}$$

425×2
 425×30

zero in multiplier

$$\begin{array}{r} 408 \\ \times 205 \\ \hline 2040 \\ + 81600 \\ \hline 83640 \end{array}$$

408×5
 408×200

three partial products

$$\begin{array}{r} 247 \\ \times 368 \\ \hline 1976 \\ + 14820 \\ + 74100 \\ \hline 90896 \end{array}$$

247×8
 247×60
 247×300

small scale

$$\begin{array}{r} 36 \\ \times 25 \\ \hline 180 \\ + 720 \\ \hline 900 \end{array}$$

36×5
 36×20

large scale

$$\begin{array}{r} 36 \\ \times 25 \\ \hline 180 \\ + 720 \\ \hline 900 \end{array}$$

36×5
 36×20