

Long Multiplication

We have to calculate 436×54 . We can write one number as the top row of a table as shown and the other number as the first column. We multiply an element in a row by an element in a column to get that element in the table.

*	400	30	6
50	20000	1500	300
4	1600	120	24

To find the element in the 3rd row 3rd column (shown in blue) we multiply 4 in the 3rd row by 30 in the 3rd column.

Then we add up all the answers in the table. We obtain: $20000 + 1500 + 300 + 1600 + 120 + 24 = 23544$.

Example: Find 456×24

*	400	50	6
20	8000	1000	120
4	1600	200	24

Then we add up all the answers in the table. We obtain $8000 + 1000 + 120 + 1500 + 200 + 24 = 10944$