

Short Multiplication

Short multiplication is a written method you can use to multiply numbers. Remember — always make sure the columns are properly lined up.

Examples

Use a formal written method to work out 4663×3 .

$$\begin{array}{r} 4663 \\ \times 3 \\ \hline 13989 \end{array}$$

Keep all columns lined up according to their place value.

Use a formal written method to work out 1256×6 .

$$\begin{array}{r} 1256 \\ \times 6 \\ \hline 7536 \end{array}$$

Set A

Work out:

1 $\begin{array}{r} 832 \\ \times 3 \\ \hline \end{array}$

2 $\begin{array}{r} 1317 \\ \times 5 \\ \hline \end{array}$

3 $\begin{array}{r} 3251 \\ \times 4 \\ \hline \end{array}$

Work out:

4 $\begin{array}{r} 4073 \\ \times 3 \\ \hline \end{array}$

5 $\begin{array}{r} 3214 \\ \times 6 \\ \hline \end{array}$

6 $\begin{array}{r} 5126 \\ \times 4 \\ \hline \end{array}$

Use short multiplication to work out:

7 4261×5

8 6315×4

9 7042×5

- 10 A collector has four chairs, each worth £4236. How much are they worth in total?

Set B

Work out:

1 $\begin{array}{r} 6462 \\ \times 5 \\ \hline \end{array}$

2 $\begin{array}{r} 7304 \\ \times 4 \\ \hline \end{array}$

3 $\begin{array}{r} 5546 \\ \times 6 \\ \hline \end{array}$

Use short multiplication to work out:

4 4865×3

5 5273×5

6 2041×9

7 5602×7

8 4026×8

9 3085×7

- 10 A theatre sells 3756 tickets each night for six nights. How many tickets have been sold in total on these six nights?

- 11 There are 1329 poppy seeds on a baguette. How many seeds are there on seven baguettes?

Set C

Work out:

1 $\begin{array}{r} 8473 \\ \times 5 \\ \hline \end{array}$

2 $\begin{array}{r} 4327 \\ \times 7 \\ \hline \end{array}$

3 $\begin{array}{r} 9206 \\ \times 8 \\ \hline \end{array}$

What number is:

4 9 times bigger than 3109?

5 6 times bigger than 4260?

6 7 times bigger than 7234?

7 7511 times bigger than 4?

8 8425 times bigger than 5?

9 2973 times bigger than 7?

A train travels 6477 miles every year. How far does it travel:

10 in 7 years?

11 in 9 years?

- 12 A town has a population of 83 946. The nearest city is eight times bigger. What is the population of the city?

can use short multiplication.



Long Multiplication

Long multiplication uses partitioning to make multiplying bigger numbers a lot less scary.

Example

Use long multiplication to work out the answer to 446×42 .

$$446 \times 42 = (446 \times 2) + (446 \times 40)$$

$$\begin{array}{r} 446 \\ \times 42 \\ \hline 892 \\ 17840 \\ \hline 18732 \end{array}$$



Set A

Work out:

$$1 \quad \begin{array}{r} 265 \\ \times 23 \\ \hline \end{array}$$

$$2 \quad \begin{array}{r} 524 \\ \times 34 \\ \hline \end{array}$$

$$3 \quad \begin{array}{r} 363 \\ \times 41 \\ \hline \end{array}$$

Work out:

$$4 \quad \begin{array}{r} 1502 \\ \times 33 \\ \hline \end{array}$$

$$5 \quad \begin{array}{r} 3553 \\ \times 41 \\ \hline \end{array}$$

$$6 \quad \begin{array}{r} 4330 \\ \times 25 \\ \hline \end{array}$$

Use long multiplication to work out:

$$7 \quad 464 \times 21$$

$$8 \quad 312 \times 34$$

$$9 \quad 416 \times 42$$

$$10 \quad 3113 \text{ times } 24$$

$$11 \quad 4224 \text{ multiplied by } 51$$

$$12 \quad 4103 \text{ multiplied by } 35$$

Set B

Work out:

$$1 \quad \begin{array}{r} 572 \\ \times 37 \\ \hline \end{array}$$

$$2 \quad \begin{array}{r} 465 \\ \times 59 \\ \hline \end{array}$$

$$3 \quad \begin{array}{r} 624 \\ \times 45 \\ \hline \end{array}$$

Work out:

$$4 \quad \begin{array}{r} 3646 \\ \times 28 \\ \hline \end{array}$$

$$5 \quad \begin{array}{r} 2442 \\ \times 63 \\ \hline \end{array}$$

$$6 \quad \begin{array}{r} 5163 \\ \times 27 \\ \hline \end{array}$$

What is:

$$7 \quad 736 \text{ times bigger than } 56?$$

$$8 \quad 562 \text{ multiplied by } 61?$$

$$9 \quad 4742 \text{ times bigger than } 43?$$

$$10 \quad 24 \text{ times bigger than } 5174?$$

$$11 \quad 3516 \text{ multiplied by } 52?$$

$$12 \quad 25 \text{ times } 6739?$$

Set C

Work out:

$$1 \quad \begin{array}{r} 806 \\ \times 54 \\ \hline \end{array}$$

$$2 \quad \begin{array}{r} 7306 \\ \times 54 \\ \hline \end{array}$$

$$3 \quad \begin{array}{r} 9134 \\ \times 62 \\ \hline \end{array}$$

Work out:

$$4 \quad 436 \times 19$$

$$5 \quad 728 \times 93$$

$$6 \quad 649 \times 31$$

$$7 \quad 9789 \times 56$$

$$8 \quad 4962 \times 85$$

$$9 \quad 7738 \times 48$$

$$10 \quad 3874 \times 93$$

There are 454 grams in a pound.
How many grams are there in:

$$11 \quad 67 \text{ pounds?}$$

$$12 \quad 92 \text{ pounds?}$$

There are 52 cards in a deck.
How many cards are in:

$$13 \quad 4847 \text{ decks?}$$

$$14 \quad 5383 \text{ decks?}$$

I can use long multiplication.



Short D

Short division is a
how to divide by

Examples

What is 984

12

Set A

Work out

$$1 \quad 11 \overline{) 115}$$

$$2 \quad 12 \overline{) 127}$$

$$3 \quad 14 \overline{) 147}$$

$$4 \quad 16 \overline{) 167}$$

Set B

Work out

$$1 \quad 12 \overline{) 127}$$

$$2 \quad 11 \overline{) 117}$$

$$3 \quad 11 \overline{) 117}$$

$$4 \quad 2 \overline{) 27}$$

Set C

Work out

$$1 \quad 1 \overline{) 17}$$

$$2 \quad 1 \overline{) 17}$$

$$3 \quad 1 \overline{) 17}$$

$$4 \quad 1 \overline{) 17}$$

can use

© COP 2017