



Maths

Multiplication and Division

Short Multiplication with Two-Digit Numbers



Aim

- I can use the short method of multiplication to multiply two-digit numbers by one-digit numbers.

Success Criteria

- I can set my calculation out correctly.
- I start at the right-hand side when calculating, multiplying the ones and then the tens.
- I can regroup tens and hundreds and record this in the next column.

Tables Tourer



The **Tables Tourer** must go and stand behind someone's chair.

The caller will then ask a times table question.

The person on the chair must race against the **Tables Tourer** to answer the question.

The first person to shout out the correct answer wins.

If it is the **Tables Tourer**, they stand behind another chair.

If the person on the chair wins, they become the next **Tables Tourer**.



Expanded Multiplication

	9	3	
x		6	
<hr/>			
	1	8	←
5	4	0	←
<hr/>			
5	5	8	←

Do you remember how to use the expanded method of multiplication?

Work out 3×6 and write the answer here.

Work out 90×6 and write the answer here.

Add them together and write your answer here.

Short Multiplication

We are going to learn how to multiply using a faster method.



Short Multiplication



H	T	O
	5	1
×		9
4	5	9

First set your calculation out correctly with one number in each square. Use a ruler to draw your lines.

Calculate the ones digit.
Multiply 1 by 9.
 $1 \times 9 = 9$ ones.
Write this in the ones column.

Now calculate the tens digit.
Multiply 5 tens by 9.
 $5 \times 9 = 45$ tens = 450.
Write the tens digit in the tens column.

Write the hundreds digit in the hundreds column.

Short Multiplication

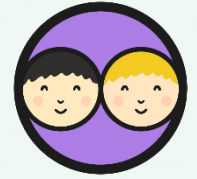


Start at the right-hand side when calculating and multiplying the ones and tens.

H	T	O
	3	2
×		4
1	2	8

H	T	O
	6	1
×		7
4	2	7

Regrouping



H	T	O
	4	6
×		8
3	6	48

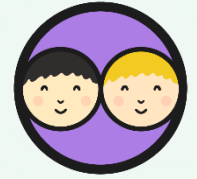
First set your calculation out correctly with one number in each square. Use a ruler to draw your lines.

We need to regroup the 40 ones into 4 tens. These go into the tens column. Write 4 under the line.

Now calculate the tens digit.
 $4 \text{ tens} \times 8 = 32 \text{ tens} = 320$.
We need to add on the 4 tens that we wrote under the line. This makes 36 tens. Write 6 in the tens column.

This leaves us with 30 tens, or 3 hundreds. Write 3 in the hundreds column.

Regrouping



First set your calculation out correctly with one number in each square. Use a ruler to draw your lines.

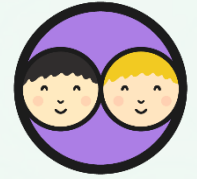
Calculate the ones.

Regroup any tens in the answer and write them in the tens column under the line.

Now calculate the tens.

Don't forget to add on any tens that you wrote underneath the line when you regrouped.

Regrouping



H	T	O
	8	6
×		6
<hr/>		
5	1	6
<hr/>		
	3	

H	T	O
	5	6
×		9
<hr/>		
5	0	4
<hr/>		
	5	

Short Multiplication Activities



★ Short Multiplication

I can use the short method of multiplication to multiply two-digit numbers.

Complete these short multiplication calculations.

1. $\begin{array}{r} 32 \\ \times 4 \\ \hline \end{array}$

2. $\begin{array}{r} 128 \\ \times 0 \\ \hline \end{array}$

3. $\begin{array}{r} 60 \\ \times 0 \\ \hline \end{array}$

4. $\begin{array}{r} 92 \\ \times 4 \\ \hline \end{array}$

★★ Short Multiplication

I can use the short method of multiplication to multiply two-digit numbers.

Complete these short multiplication calculations.

1. $\begin{array}{r} 86 \\ \times 6 \\ \hline \end{array}$

2. $\begin{array}{r} 516 \\ \times 3 \\ \hline \end{array}$

3. $\begin{array}{r} 69 \\ \times 6 \\ \hline \end{array}$

4. $\begin{array}{r} 94 \\ \times 8 \\ \hline \end{array}$

★★★ Short Multiplication

I can use the short method of multiplication to multiply two-digit numbers.

Complete these short multiplication calculations. The first one has been started.

1. $\begin{array}{r} 86 \\ \times 6 \\ \hline 516 \\ \hline \end{array}$

2. $\begin{array}{r} 44 \\ \times 8 \\ \hline \end{array}$

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

4. $\begin{array}{r} 69 \\ \times 6 \\ \hline \end{array}$

5. $\begin{array}{r} 78 \\ \times 7 \\ \hline \end{array}$

6. $\begin{array}{r} 78 \\ \times 7 \\ \hline \end{array}$

7. $\begin{array}{r} 94 \\ \times 8 \\ \hline \end{array}$

8. $\begin{array}{r} 82 \\ \times 6 \\ \hline \end{array}$

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

★★★ Short Multiplication

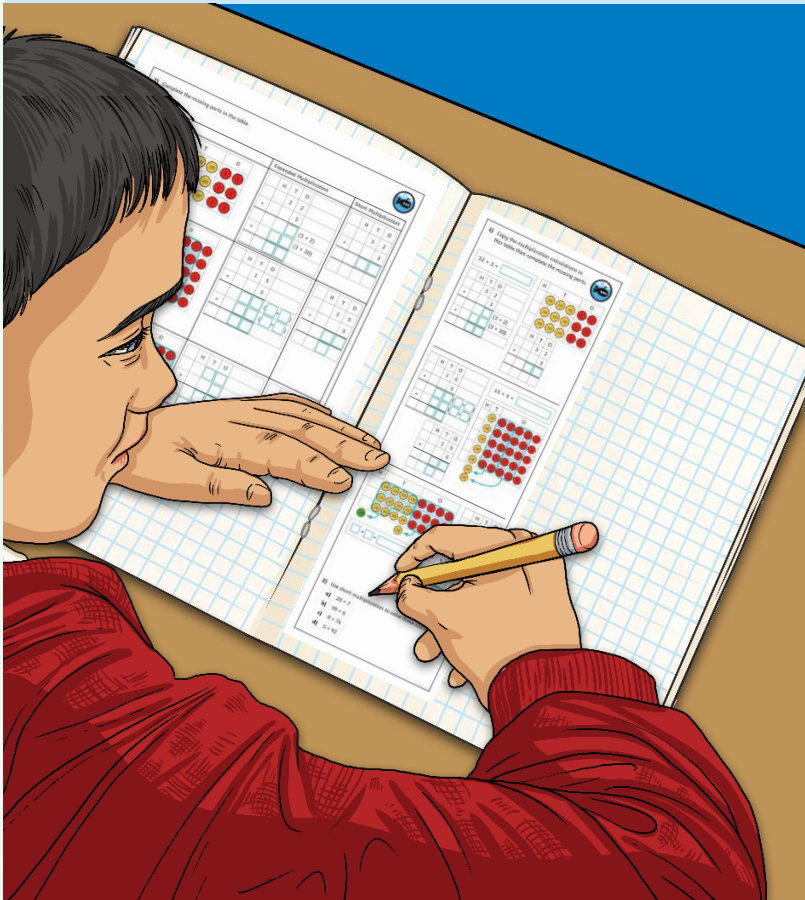
10. $\begin{array}{r} 48 \\ \times 9 \\ \hline \end{array}$

11. $\begin{array}{r} 67 \\ \times 8 \\ \hline \end{array}$

12. $\begin{array}{r} 79 \\ \times 7 \\ \hline \end{array}$

Diving into Mastery

Dive in by completing your own activity!



1) Copy the multiplication calculations in this table then complete the missing parts.

$32 \times 3 =$

	H	T	O
	3	2	
\times			3
$+$			

(3 \times 2)
(3 \times 30)

$15 \times 5 =$

	H	T	O
	1	5	
\times			5
$+$			

	H	T	O
	10	10	10
\times			3
$+$			

$\square \times \square = \square$

	H	T	O
	1	5	
\times			5
$+$			

2) Use short multiplication to solve these calculations.

- 28×7
- 59×6
- 8×74
- 5×92

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- 5×92

Short Multiplication

	H	T	O
		3	2
\times			3
$+$			

(3 \times 2)
(3 \times 30)

	H	T	O
		1	5
\times			5
$+$			

d) $5 \times 92 =$

	H	T	O
\times			
$+$			

Spot the Mistake



Can you find and correct the mistakes in this calculation?

	2	9
×		9
1	8	1
	8	

Answer should
be 261.

Spot the Mistake



Can you find and correct the mistakes in this calculation?

	7	7
×		7
5	2	9
	4	

Answer should
be 529.

Spot the Mistake



Can you find and correct the mistakes in this calculation?

	5	7
×		6
3	1	3
	1	

Answer should
be 342.

Spot the Mistake



Can you find and correct the mistakes in this calculation?

	5	0
×		9
4	5	9

Answer should
be 450.

Aim



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