

## Session 4- Multiplication 4 digits by 2 digits

### Tricky

Complete the multiplication.

		1	2	3	4
x				2	1
		1	2	3	4
	2	4	6	8	0

$$(1,234 \times \square)$$

$$(1,234 \times \square)$$

Tommy is calculating  $1,234 \times 26$

a) Complete his working out.

		1	2	3	4
x				2	6
		7	4	0	4
	2	4	6	8	0

$$(\square \times \square)$$

$$(\square \times \square)$$

b) Fill in the grid to check Tommy's working is accurate.  
You may use place value counters to help.

x	1,000	200	30	4
20				
6				

$$6543 \times 21 =$$

$$2342 \times 43 =$$

$$4511 \times 23 =$$

$$8001 \times 26 =$$

$$5037 \times 15 =$$

$$9261 \times 11 =$$

$$74 \times 1156 =$$

$$49 \times 3860 =$$

Then have a look at the trickier questions

### Extra challenge questions

Work out the following

- A)  $4,284 \times 23$  and  $2,142 \times 46$  What do you notice?  
B)  $378 \times 7 \times 12$

1	2	3	4	5	6
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x			

a) Using all the digit cards, create 4 different calculations and work out the answer to each.

b) Write your answers in ascending order.

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c) What is the smallest product that can be made?

### Trickier

Rosie is calculating  $2,541 \times 42$

Here is Rosie's working.

2	5	4	1		
x		4	2		
	4	0	8	2	
	8	0	6	4	
	1	2	1	4	6

a) Rosie has made two mistakes. What are they?

b) What is the correct answer?

### Trickiest next step

Teddy has spilt some paint on his calculation.

		2		6	9
x				2	
	2	2	5	9	7
	1	5	1	7	1
	1	0	1	3	3

What are the missing digits?

What do you notice?

A machine makes 2,734 boxes every hour. The machine works for 3 hours each day.

How many boxes will be made in 12 days?

- 1) Amir scores 4,680 points in a computer game for 12 games in a row. Whitney scores 2,512 points every game for 24 games.

Who scores more points?

How many more?

# Answers

### Tricky

Complete the multiplication.

		1	2	3	4
×				2	1
		1	2	3	4
		2	4	6	8
		2	5	9	1
					4

(1,234 × 1 )  
(1,234 × 20 )

Tommy is calculating  $1,234 \times 26$

a) Complete his working out.

		1	2	3	4
×				2	6
		7	4	0	4
		2	4	6	8
		3	2	0	8
					4

(1,234 × 6 )  
(1,234 × 20 )

b) Fill in the grid to check Tommy's working is accurate.  
You may use place value counters to help.

×	1,000	200	30	4
20	20,000	4,000	600	80
6	6,000	1,200	180	24

### Trickier

Rosie is calculating  $2,541 \times 42$

Here is Rosie's working.

2	5	4	1
×		4	2
4	0	8	2
8	0	6	4
1	2	1	4

(2,541 × 2)  
(2,541 × 40)

a) Rosie has made two mistakes. What are they?

She hasn't correctly exchanged  
She has multiplied by 4 not 40

106,722

Trickiest next step

The missing digits are all 8

6543 × 21=137,403  
2342 × 43=100,706  
4511 × 23= 103,753  
8001 × 26=,208,026  
5037 × 15= 75,555  
9261 × 11=101,871  
74 × 1156=85,544  
49 × 3860=189,140

Work out the following

- A)  $4,284 \times 23$  and  $2,142 \times 46$  What do you notice? **They both give the answer 98,532**
- B)  $378 \times 7 \times 12 = 31,752$

c) What is the smallest product that can be made?

32,544

A machine makes 2,734 boxes every hour. The machine works for 3 hours each day.

How many boxes will be made in 12 days? **98,424 boxes**

- 1) Amir scores 4,680 points in a computer game for 12 games in a row. Whitney scores 2,512 points every game for 24 games.

Who scores more points? **Amir scores 56,160 points and Whitney scores 60,288 points. So Whitney scores more**

How many more? **4,128 points more**