

January

12 Times tables

$$12 \times 0 = 0$$

$$12 \times 1 = 12$$

$$12 \times 2 = 24$$

$$12 \times 3 = 36$$

$$12 \times 4 = 48$$

$$12 \times 5 = 60$$

$$12 \times 6 = 72$$

$$12 \times 7 = 84$$

$$12 \times 8 = 96$$

$$12 \times 9 = 108$$

$$12 \times 10 = 120$$

$$12 \times 11 = 132$$

$$12 \times 12 = 144$$

Arithmetic

1.0

Factors of 20

2.0

Factors of 25

3.0

Factors of 30

4.0

Factors of 116

Arithmetic answers

1.0

1,2,4,5,10,20

2.0

1,5,25

3.0

1,2,3,5,6,10,15,30

4.0

1,2,4,29,58,116

08.01.21

LO: To multiply 4 digits by 2 digits

Home learning video support if needed. Please click on link and watch video.

<https://www.youtube.com/watch?v=RVYwunbpMHA>

Step 1 ✓ Step 4 ✓
Step 2 ✓ Step 5 ✓
Step 3 ✓ Step 6 ✓

$$\begin{array}{r} 1324 \\ \times 46 \\ \hline 1944 \\ 12960 \\ \hline \end{array}$$

8:24

Math Antics - Multi-Digit Multiplication Pt 2

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Subtitles

Strategy

MULTIPLY BY 2-DIGIT #'s

Step 1: Multiply the top number by the ones digit

$$\begin{array}{r} \overset{1}{3}\overset{3}{2}\overset{8}{8} \\ \times \quad \quad \quad \overset{4}{14} \\ \hline 1,312 \end{array}$$

Step 2: Put your place-holder zero


$$\begin{array}{r} \overset{1}{3}\overset{3}{2}\overset{8}{8} \\ \times \quad \quad \quad \overset{14}{14} \\ \hline 1,312 \\ 0 \end{array}$$

Step 3: Multiply the top number by the tens digit

$$\begin{array}{r} \overset{1}{3}\overset{3}{2}\overset{8}{8} \\ \times \quad \quad \quad \overset{4}{14} \\ \hline 1,312 \\ 3,280 \end{array}$$

Step 4: Add

$$\begin{array}{r} \overset{1}{3}\overset{3}{2}\overset{8}{8} \\ \times \quad \quad \quad \overset{14}{14} \\ \hline 1,312 \\ + 3,280 \\ \hline 4,592 \end{array}$$

 Use $<$, $>$ or $=$ to make the statements correct.

$4,458 \times 56$



$4,523 \times 54$

$4,458 \times 55$



$4,523 \times 54$

$4,458 \times 55$



$4,522 \times 54$

Mathematical Talk

Explain the steps followed when using this multiplication method.

Look at the numbers in each question, can they help you estimate which answer will be the largest?

Explain why there is a 9 in the thousands column.

Why do we write the larger number above the smaller number?

What links can you see between these questions? How can you use these to support your answers?

TASKs

Task 1 Complete the questions on this presentation

Task 2 complete the worksheet Friday Worksheet, you decide where you start.
Ensure you challenge yourself.

Once finished, do the thinking deeper questions on the next slides.

Mark your work once finished. Remember do not cheat. You will not learn that way.

Multiply 4-digits by 2-digits

- 1 Complete the multiplication.

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

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

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

- 2 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

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

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

- 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				



- 3 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

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

- b) What is the correct answer?

- 4 Work out the multiplications.

a) $4,284 \times 23$

b) $2,142 \times 46$

What do you notice?

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

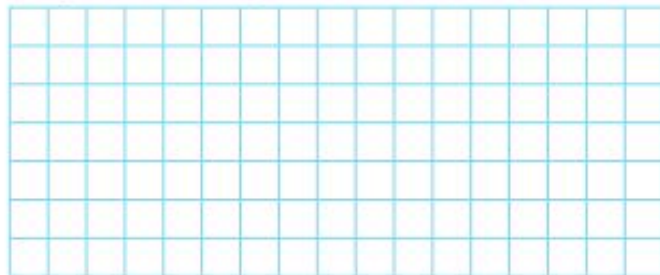
a) How many boxes will it make in 12 days?

b) Compare methods with a partner. Were there any other ways you could have worked out the answer?



- 6 Work out $378 \times 7 \times 12$

Show your method clearly.



- 7
- | | | | | | |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|

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.

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

- 8 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?

Multiply 4-digits by 2-digits

1 Complete the multiplication.

			1	2	3	4			
	x				2	1			
			1	2	3	4			
		2	4	6	8	0			
			2	5	9	1	4		

$(1,234 \times \boxed{1})$

$(1,234 \times 20)$

2 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			
	3	2	0	8	4			

$$(1,234 \times 6)$$

$$(1,234 \times 20)$$

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

Open with

3 Rosie is calculating $2,541 \times 42$

Here is Rosie's working.

x	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.

b) What is the correct answer?

106,722

4 Work out the multiplications.

a) $4,284 \times 23$

b) $2,142 \times 46$

$$\begin{array}{r} 4284 \\ \times 23 \\ \hline 12852 \\ 85680 \\ \hline 98532 \end{array}$$

What do you notice?

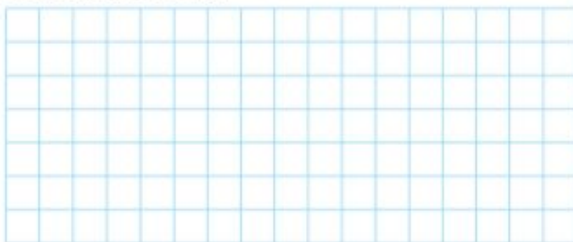
- 5 A machine makes 2,734 boxes every hour.
The machine works for 3 hours each day.
a) How many boxes will it make in 12 days?

98,424

- b) Compare methods with a partner. Were there any other ways you could have worked out the answer?



- 6 Work out $378 \times 7 \times 12$
Show your method clearly.



31,752

7

1	2	3	4	5	6
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×

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

Various answers.

- b) Write your answers in ascending order.

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

32,544

8

- 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?

Whitney

Amir: 56,160

Whitney: 60,288

How many more?

4,128

Thinking Deeper

Can you spot and correct the errors in the calculation?

		2	5	3	4
×				2	3
		₁ 7	5	₁ 9	2
		₁ 5	0	6	8
	1	2	₁ 6	₁ 6	0

There are 2 errors.
In the first line of working, the exchanged ten has not been added.
In the second line of working, the place holder is missing.
The correct answer should be 58,282