# Multiply 2-Digits by 1-Digit

To multiply a 2-digit number by a 1-digit number using a formal written method.



- 1) Complete the multiplication calculations. Use the place value charts to help you.
  - α) 14 × 2 =

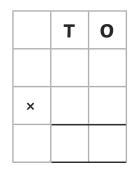
Tens	Ones
10	
10	0000

	Т	0
×		

Tens	Ones
10 10 10	1 1
10 10 10	1 1
10 10 10	0 0

	Т	0
×		

Tens	Ones
10 10	1
10 10	1
10 10	1



Tens	Ones
10 10	1 1
10 10	0 0
10 10	0 0
10 10	0 0

	Т	0
×		

2) Draw the counters on the place value chart and solve the multiplication calculations.

α) 33 × 2 =	
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Tens	Ones			Т	0
		×	(		

Tens	Ones

	Т	0
×		

3) Phoebe has been working through some multiplication calculations. She has made a mistake when solving  $41 \times 2$ . Show her how to solve the calculation correctly and explain the error that she made.

Tens	Ones
10 10 10 10	1
10 10 10 10	1

	Т	0		Т	0
	4	1			
×		2	×		
	6	2			

# Multiply 2-Digits by 1-Digit

To multiply a 2-digit number by a 1-digit number using a formal written method.



- 1) Complete the multiplication calculations. Draw counters to represent the calculations and then use the formal method to find the answers.
  - a)  $21 \times 4 =$

Tens	Ones

	Т	0
×		

	Т	0
×		

Ones

	Т	0
×		

Tens	Ones		

-13	27 2	
a)	34 × 2 =	

_		
	Tens	Ones

	Т	0
×		

T

×

0

- 2) Solve the word problems using the formal method for multiplication.
- a) A baker makes 4 boxes of cookies. Each box contains 12 cookies. How many cookies are there in total?

×	=	

Tens	Ones

	Т	0
×		

b) A man runs 22 kilometres a day. How many kilometres does he run in total over 3 days?

×	=	
1	ı	

Tens	Ones

U		_
	Т	0
×		

3) Lucas has completed a multiplication question.



3	3
	3
6	6

Lucas is incorrect.

Look at his method.

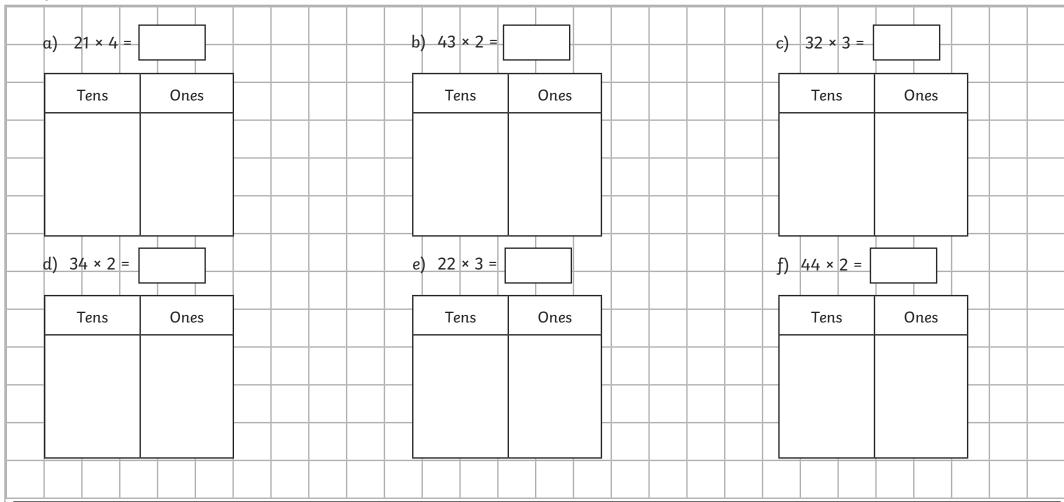
Where has he gone wrong? Explain his error.

## Multiply 2-Digits by 1-Digit

To multiply a 2-digit number by a 1-digit number using a formal written method.



1) Solve the multiplication calculations using the formal method. Use the space next to each place value chart to set out the formal method.



2) Find the missing numbers in the calculations.

a)

	Т	0
		3
×		3
	3	

ე)

	Т	О
	2	
×		2
		8

c)

	Т	0
	1	1
×		
		4

d

	Т	0
×		2
	6	4

3) Carla and Zack have carried out the same calculation but have found different answers.

Tick the child who has solved the calculation correctly and explain where the other child has made the error.



	Т	0
	4	3
×		2
8	0	6



	Т	0
	4	3
×		2
	8	6

### **Answers**

1) Complete the multiplication calculations. Use the place value charts to help you.

Tens	Ones
10	
10	1 1 1

	Т	0
	1	4
×		2
	2	8

Tens	Ones
10 10 10	1 1
10 10 10	1 1
10 10 10	1 1

	Т	0
	3	2
×		3
	9	6

Tens	Ones
10 10	1
10 10	1
10 10	1

	Т	0
	2	1
×		3
	6	3

Tens	Ones
10 10	1 1
10 10	1 1
10 10	1 1
10 10	1 1

	Т	0
	2	2
×		4
	8	8

2) Draw the counters on the place value chart and solve the multiplication calculations.

Tens	Ones
10 10 10	1 1 1
10 10 10	1 1 1

	Т	0
	3	3
×		2
	6	6

Tens	Ones
10 10	1 1 1
10 10	1 1 1
10 10	1 1 1

	Т	0
	2	3
×		3
	6	9

3) Phoebe has been working through some multiplication calculations. She has made a mistake when solving  $41 \times 2$ . Show her how to solve the calculation correctly and explain the error that she made.

Tens	Ones
10 10 10 10	1
10 10 10 10	1

	Т	0		Т	C
	4	1		4	1
×		2	×		2
	6	2	<b>M</b>	8	2

Phoebe made a mistake when multiplying 4 tens by 2. 4 tens multiplied by 2 equals 8 tens but she wrote the answer as 6. It is likely that she added 4 and 2 to get 6 rather than multiplying them.

### **Answers**

1) Complete the multiplication calculations. Draw counters to represent the calculations and then use the formal method to find the answers.

Tens	Ones
Terts	Ories
10 10	1
10 10	1
10 10	1
10 10	1

	Т	0
	2	1
×		4
	8	4

Tens	Ones
10 10 10 10	1 1 1
10 10 10 10	1 1 1

	Т	0
	4	3
×		2
	8	6

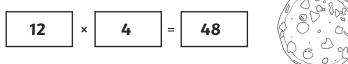
Tens	Ones
10 10 10	1 1
10 10 10	1 1
10 10 10	1 1

	Т	0
	3	2
×		3
	9	6

Tens	Ones
10 10 10	1 1 1
10 10 10	1111

	Т	0
	3	4
×		2
	6	8

- 2) Solve the word problems using the formal method for multiplication.
- a) A baker makes 4 boxes of cookies. Each box contains 12 cookies. How many cookies are there in total?



Tens	Ones
10	1 1
10	1 1
10	1 1
10	1 1

	Т	0
	1	2
×		4
	4	8

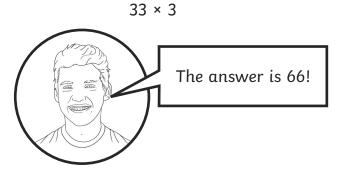
b) A man runs 22 kilometres a day. How many kilometres does he run in total over 3 days?



Tens	Ones
10 10	1 1
10 10	1 1
10 10	1 1

	Т	0
	2	2
×		3
	6	6

3) Lucas has completed a multiplication question.



	Т	0
	3	3
×		3
	6	6

Lucas has added 3 and 3 each time rather than multiplying the ones by 3 and the tens by 3. The correct answer is 99.

Lucas is incorrect.

Look at his method.

Where has he gone wrong? Explain his error.

### **Answers**

- 1) Solve the multiplication calculations using the formal method. Use the space next to each place value chart to set out the formal method.
  - α) 21 × 4 = **84**

Tens	Ones
10 10	1
10 10	1
10 10	1
10 10	1

b) 43 × 2 = **86** 

Tens	Ones
10 10 10 10	1 1
10 10 10 10	1 1

c) 32 × 3 = **96** 

Tens	Ones
10 10 10	1 1
10 10 10	1 1
10 10 10	1 1

d) 34 × 2 = **68** 

Tens	Ones
10 10 10	
10 10 10	1 1 1

e) 22 × 3 = **66** 

Tens	Ones
10 10	1 1
10 10	1 1
10 10	1 1

Tens	Ones
10 10 10 10	1 1 1
10 10 10 10	1 1 1

2) Find the missing numbers in the calculations.

a)

	Т	0
	1	3
×		3
	3	9

b)

	Т	0
	2	4
×		2
	4	8

c)

	Т	0
	1	1
×		4
	4	4

d)

	Т	0
	3	2
×		2
	6	4

3) Carla and Zack have carried out the same calculation but have found different answers.

Tick the child who has solved the calculation correctly and explain where the other child has made the error.



	Т	0
	4	3
×		2
8	0	6



	Т	0
	4	3
×		2
	8	6

Zack is correct and Carla is incorrect. Carla has recorded 4 tens multiplied by 2 incorrectly.

She needed to put an 8 digit in the tens place but she incorrectly placed it in the hundreds place.