

Reasoning and Problem Solving

Step 3: Multiply 2 Digits by 1 Digit 1

National Curriculum Objectives:

Mathematics Year 3: (3C6) [Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables](#)

Mathematics Year 3: (3C7) [Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods](#)

Mathematics Year 3: (3C8) [Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which \$n\$ objects are connected to \$m\$ objects](#)

Differentiation:

Questions 1, 4 and 7 (Reasoning)

Developing Explain whether a multiplication calculation (with no exchanges) is correct by using knowledge of the 2, 3, 5 and 8 times tables. Pictorial support and scaffolding given.

Expected Explain whether a multiplication calculation (with no exchanges) is correct by using knowledge of the 2, 3, 4, 5 and 8 times tables.

Greater Depth Identify the missing number for both calculations (with no exchanges) by using knowledge of the 2, 3, 4, 5 and 8 times tables.

Questions 2, 5 and 8 (Reasoning)

Developing Identify a mystery 2-digit number when multiplying by 2, 3, 4, 5 or 8. Pictorial support and scaffolding given.

Expected Identify a mystery 2-digit number when multiplying by 2, 3, 4, 5 or 8.

Greater Depth Identify a mystery 2-digit number when multiplying by 2, 3, 4, 5 or 8. Includes two-step problems.

Questions 3, 6 and 9 (Problem Solving)

Developing Create a multiplication calculation (with no exchanges) using three digit cards where some numbers have already been completed. Children apply knowledge of 2, 3, 4, 5 and 8 times tables. Pictorial support and scaffolding given.

Expected Create a multiplication calculation (with no exchanges) using three digit cards where some numbers have already been completed. Children apply knowledge of 2, 3, 4, 5 and 8 times tables.

Greater Depth Create a multiplication calculation (with no exchanges) using five digit cards. Children apply knowledge of 2, 3, 4, 5 and 8 times tables.

More [Year 3 Multiplication and Division](#) resources.

Did you like this resource? Don't forget to [review](#) it on our website.

Multiply 2 Digits by 1 Digit 1

Multiply 2 Digits by 1 Digit 1

1a. Rehan and Destiny have solved the following multiplications.



	T	O
	3	2
x		2
	5	4

Rehan

	T	O
	2	1
x		2
	4	2



Destiny

T	O
● ● ●	● ●
● ● ●	● ●

T	O
● ●	●
● ●	●

Are they both correct?
Explain how you know.



R

1b. Fatima and Dan have solved the following multiplications.



	T	O
	2	2
x		2
	4	4

Fatima

	T	O
	2	3
x		2
	1	2



Dan

T	O
● ●	● ●
● ●	● ●

T	O
● ●	● ● ●
● ●	● ● ●

Are they both correct?
Explain how you know.

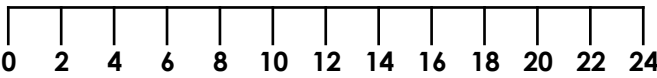


R

2a. Jana is thinking of a number.



I multiplied a number by 2. The answer was 24.



What is Jana's number?
Explain how you know.

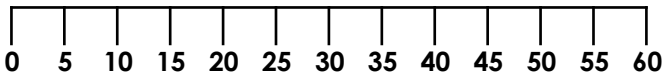


R

2b. Jakub is thinking of a number.



I multiplied a number by 5. The answer was 55.



What is Jakub's number?
Explain how you know.



R

3a. Create and solve a calculation using the digit cards below.

	T	O
		3
x		
		9

2

6

3

● ●

● ● ●

● ●

● ● ●

● ●

● ● ●

● ●

● ● ●



PS

3b. Create and solve a calculation using the digit cards below.

	T	O
		4
x		
		8

6

2

3

● ● ●

● ● ● ●

● ● ●

● ● ● ●

● ● ●

● ● ● ●

● ● ●

● ● ● ●



PS

Multiply 2 Digits by 1 Digit 1

Multiply 2 Digits by 1 Digit 1

4a. Brody and Rose have solved the following multiplications.



	T	O
	3	3
x		3
	9	9

	T	O
	3	2
x		3
	9	5



Are they correct?
Explain how you know, using a place value grid to show your working.



R

4b. Ian and Ellie have solved the following multiplications.



	T	O
	2	2
x		4
	8	8

	T	O
	1	1
x		8
	1	9



Are they correct?
Explain how you know, using a place value grid to show your working.



R

5a. Blake is thinking of a number.



I multiplied a number by 8. The answer was 88.

What is Blake's number?
Explain how you know.



R

5b. Brooke is thinking of a number.



I multiplied a number by 4. The answer was 48.

What is Brooke's number?
Explain how you know.



R

6a. Create and solve a calculation using the digit cards below.

	T	O
		2
x		
		8

2	8	4
---	---	---



PS

6b. Create and solve a calculation using the digit cards below.

	T	O
		2
x		
	4	

8	1	4
---	---	---



PS

Multiply 2 Digits by 1 Digit 1

Multiply 2 Digits by 1 Digit 1

7a. Sara and Riley have multiplied the same number by different amounts.



Sara

	T	O
	?	?
x		2
	4	6

	T	O
	?	?
x		3
	6	9



Riley

What was their number?
Explain how you know, using a place value grid to show your working.



R

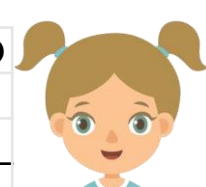
7b. Rehan and Anna have multiplied the same number by different amounts.



Rehan

	T	O
	?	?
x		4
	8	4

	T	O
	?	?
x		3
	6	3



Anna

What was their number?
Explain how you know, using a place value grid to show your working.



R

8a. Ben is thinking of a number.



I multiplied a number by 4. I then subtracted 5. The answer was 83.

What is Ben's number?
Explain how you know.



R

8b. Fatima is thinking of a number.



I multiplied a number by 3. I then added 10 and the answer was 73.

What is Fatima's number?
Explain how you know.



R

9a. Create and solve a calculation using all the digit cards below.

	T	O
x		

- 3
- 2
- 9
- 6
- 3



PS

9b. Create and solve a calculation using all the digit cards below.

	T	O
x		

- 4
- 2
- 1
- 8
- 4



PS

Reasoning and Problem Solving

Multiply 2 Digits by 1 Digit 1

Developing

- 1a. Destiny is correct. Rehan has added 2 to each number instead of multiplying.
2a. 12; $2 \times 12 = 24$
3a. $23 \times 3 = 69$

Expected

- 4a. Brody is correct. Rose has added the numbers in the ones column.
5a. 11; $8 \times 11 = 88$
6a. $22 \times 4 = 88$

Greater Depth

- 7a. 23
8a. 22; $83 + 5 = 88$ and $4 \times 22 = 88$
9a. $23 \times 3 = 69$ or $32 \times 3 = 96$

Reasoning and Problem Solving

Multiply 2 Digits by 1 Digit 1

Developing

- 1b. Fatima is correct. Dan has taken 1 away from each digit instead of multiplying.
2b. 11; $5 \times 11 = 55$
3b. $34 \times 2 = 68$

Expected

- 4b. Ian is correct. Ellie has added the numbers instead of multiplying.
5b. 12; $4 \times 12 = 48$
6b. $12 \times 4 = 48$

Greater Depth

- 7b. 21
8b. 21; $73 - 10 = 63$ and $21 \times 3 = 63$
9b. $21 \times 4 = 84$ or $12 \times 4 = 48$