Reasoning and Problem Solving
Step 5: Divide 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

Differentiation:

Questions 1, 4 and 7 (Reasoning)
Developing Identify and explain the odd one out of 4 calculations. Includes dividing 2-digit numbers that are 40 or less by a 1-digit number, using knowledge of the 3, 4 and 5 times tables. Includes pictorial representations.
Expected Identify and explain the odd one out of 3 calculations. Includes dividing 2-digit numbers that are greater than 40 by a 1-digit number, using knowledge of the 4 and 8 times tables. Includes pictorial representations.
Greater Depth Complete the missing digits in three representations so that a specific calculation is the odd out and explain why. Includes dividing 2-digit numbers by a 1-digit number, using knowledge of the 3 times table. Includes incomplete calculations.

Questions 2, 5 and 8 (Problem Solving)
Developing Solve a word problem by dividing 2-digit numbers by a 1-digit number, using knowledge of the 2 and 3 times tables. Includes pictorial representations and scaffolding.
Expected Solve a word problem by dividing 2-digit numbers by a 1-digit number, using knowledge of the 3 times table. Includes pictorial representations and some missing numbers.
Greater Depth Solve a multi-step word problem by dividing 2-digit numbers by a 1-digit number, using knowledge of the times tables. Includes some missing information.

Questions 3, 6 and 9 (Problem Solving)
Developing Calculate the starting number in a calculation. Includes dividing 2-digit numbers by a 1-digit number, using knowledge of the 3 and 4 times tables. Includes pictorial representations.
Expected Calculate the starting number in a calculation. Includes dividing 2-digit numbers by a 1-digit number, using knowledge of the 4 and 8 times tables.
Greater Depth Calculate the starting number in a two-step calculation. Includes dividing 2-digit numbers by a 1-digit number, using knowledge of the 4 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.

Divide 2-Digits by 1-Digit 1

Divide 2-Digits by 1-Digit 1

1a. Circle the odd one out.

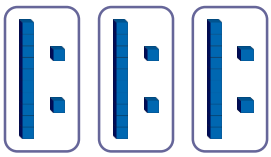
A.

Tens	Ones
●	● ●
●	● ●
●	● ●

B.

Tens	Ones
●	
●	
●	
●	
●	

C.



D.

10	1	1
10	1	1
10	1	1

D

Explain your reasoning.

R

1b. Circle the odd one out.

A.

Tens	Ones
●	
●	
●	

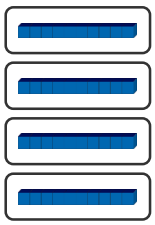
B.

10	10
10	10

C.

Tens	Ones
●	
●	
●	
●	

D.



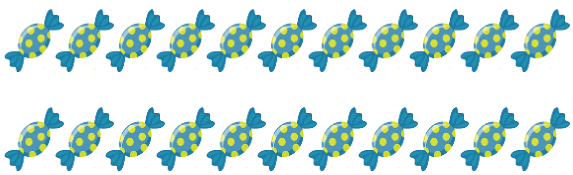
D

Explain your reasoning.

R

2a. Mr Flint has a bag of 22 sweets.

He gives 2 children an equal number of sweets.



22 ÷ ☐ = ☐

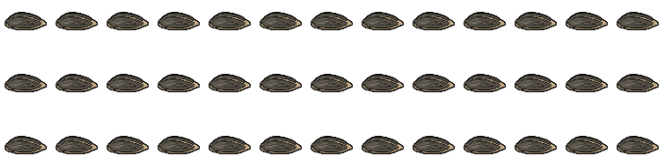
How many sweets does each child get?

D

PS

2b. Priya has a packet of 39 seeds.

She plants an equal number of seeds in the three flower boxes in her garden.



39 ÷ ☐ = ☐

How many seeds are in each flower box?

D

PS

3a. Use the bar model and clues below to work out Euan's number.

?		
10 1 1	10 1 1	10 1 1

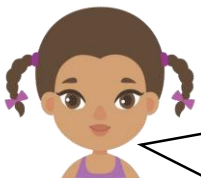
I am thinking of a number.
When I divide my number by 3, I get the answer 12.
What is my number?

D

PS

3b. Use the bar model and clues below to work out Mimi's number.

?			
10	10	10	10



I am thinking of a number.
When I divide my number by 4, I get the answer 10.
What is my number?

D

PS

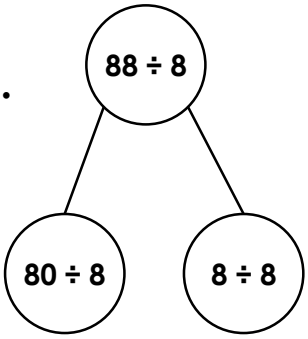
Divide 2-Digits by 1-Digit 1

4a. Circle the odd one out.

A.

Tens	Ones
●	
●	
●	
●	
●	
●	
●	
●	

B.



C.

88							
11	11	11	11	11	11	11	11

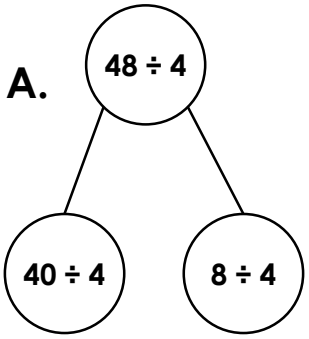
E

Explain your reasoning.

R

4b. Circle the odd one out.

A.



B.

Tens	Ones
●	● ●
●	● ●
●	● ●
●	● ●

C.

44			
11	11	11	11

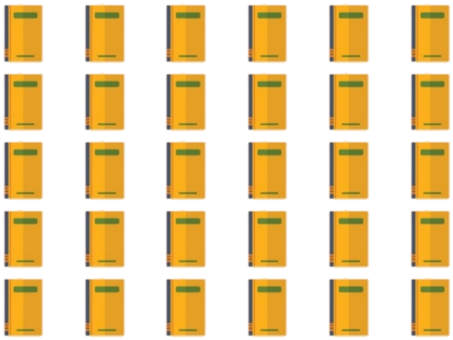
E

Explain your reasoning.

R

5a. Mr Rogers has a box of ____ books.

He gives an equal number of books to each of his three helpers to give out.



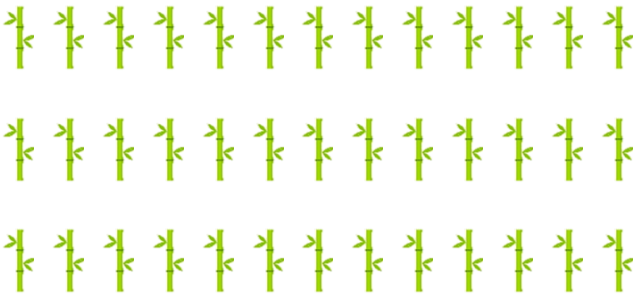
How many books does each child get?

E

PS

5b. A zookeeper has ___ bamboo shoots.

She gives an equal number of bamboo shoots to each of the three pandas.



How many shoots does each panda get?

E

PS

6a. Use the clues to work out Alisha's number.

I am thinking of a number.

When I divide my number by 8, I get the answer 11.

What is my number?

E

PS

6b. Use the clues to work out Alan's number.

I am thinking of a number.

When I divide my number by 4, I get the answer 12.

What is my number?

E

PS

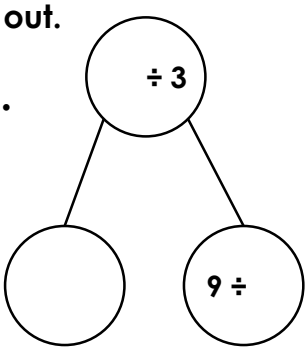
Divide 2-Digits by 1-Digit 1

7a. Complete these representations so that A is the odd one out.

A.

Tens	Ones
	●
	●

B.



C.

		__3

Explain your reasoning.

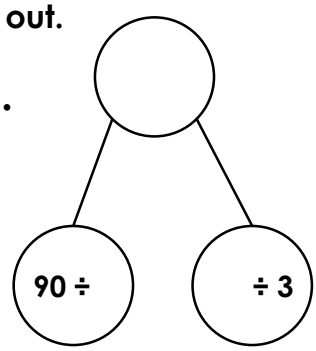
R

7b Complete these representations so that C is the odd one out.

A.

Tens	Ones
●	
	●
●	

B.



C.

		___3
3		

Explain your reasoning.

R

8a. Jean bakes 49 cookies.

She eats 5 of them straightaway.

She then gives an equal number to each of her cousins.

There were no cookies left.

How many cousins does she have and how many cookies do they each get?

PS

8b. Stanley has a box of 88 felt tips.

He throws 4 of them away.

He then gives an equal number to each of his grandchildren.

There were no felt tips left.

How many grandchildren does he have and how many felt tips do they each get?

PS

9a. Solve the problem below.

Violet is thinking of a number.

I subtract 5 from my number and then divide it by 4. The answer is twenty-one.

What is Violet's number?

PS

9b. Solve the problem below.

Reece is thinking of a number.

I add 7 to my number and then divide it by 8. The answer is eleven.

What is Reece's number?

PS

Reasoning and Problem Solving
Divide 2-Digits by 1-Digit 1

Developing

1a. B is the odd one out because all of the other images have been shared equally into three groups whereas B has been shared into five groups.

2a. 22 ÷ 2 = 11 sweets for each child

3a. Euan's number is 36 because 36 ÷ 3 = 12.

Expected

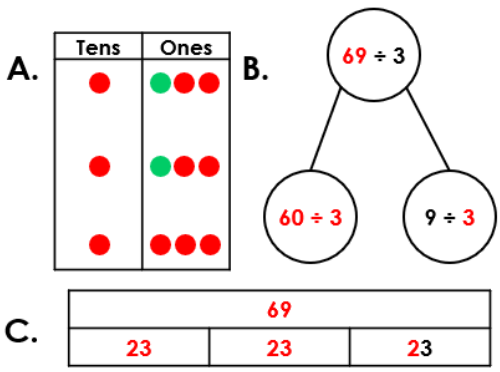
4a. A is the odd one out because both B and C show the division 88 ÷ 8 = 11 whereas A shows 80 ÷ 10 = 8.

5a. Mr Rogers has 30 books. 30 ÷ 3 = 10 so each child receives 10 books.

6a. Alisha's number is 88 because 88 ÷ 8 = 11.

Greater Depth

7a. Various answers, for example:



In the example above, A is the odd one out because both B and C show the division 69 ÷ 3 whereas A shows 39 ÷ 3.

8a. Various answers, for example: Jean could have 4 cousins so each cousin would receive 11 cookies because 44 ÷ 4 = 11.

9a. Violet's number is 89 because 89 - 5 = 84 and 84 ÷ 4 = 21.

Reasoning and Problem Solving
Divide 2-Digits by 1-Digit 1

Developing

1b. A is the odd one out because all of the other images have been shared equally into four groups whereas A has been shared into three groups.

2b. 39 ÷ 3 = 13 seeds in each flower box

3b. Mimi's number is 40 because 40 ÷ 4 = 10.

Expected

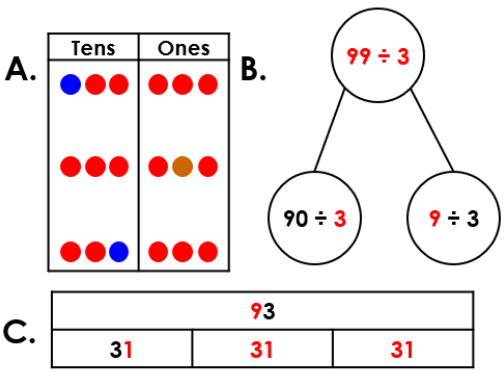
4b. C is the odd one out because both A and B show the division 48 ÷ 4 = 12 whereas C shows 44 ÷ 4 = 11.

5b. The zookeeper has 39 bamboo shoots. 39 ÷ 3 = 13 so each panda receives 13 shoots.

6b. Alan's number is 48 because 48 ÷ 4 = 12.

Greater Depth

7b. Various answers, for example:



In the example above, C is the odd one out because both A and B show the division 99 ÷ 3 whereas C shows 93 ÷ 3.

8b. Various answers, for example: Stanley could have 4 grandchildren so each grandchild would receive 21 felt tips because 84 ÷ 4 = 21.

9b. Reece's number is 95 because 95 - 7 = 88 and 88 ÷ 8 = 11.