Reasoning and Problem Solving
Step 8: Divide 2 Digits by 1 Digit 1

National Curriculum Objectives:

Mathematics Year 4: (4C6a) Recall multiplication and division facts for multiplication tables up to 12 × 12

Mathematics Year 4: (4C6b) Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers

Mathematics Year 4: (4C8) Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects

Differentiation:

Questions 1, 4 and 7 (Reasoning)
Developing Identify the correct answer using division with no exchange. Pictorial support given.
Expected Identify the correct answer using division with some exchanges. Pictorial support given.
Greater Depth Identify the correct missing digit using division with exchanges.

Questions 2, 5 and 8 (Problem Solving)
Developing Identify the odd one out from given calculations by dividing 2-digit numbers by 1-digit numbers with no exchanges. Pictorial support given.
Expected Identify the odd one out from given calculations by dividing 2-digit numbers by 1-digit numbers with exchanges.
Greater Depth Create three calculations to make two given statements true. Exchanges needed.

Questions 3, 6 and 9 (Problem Solving)
Developing Match solved division calculations to statements using division with no exchange.
Expected Match solved division calculations to statements using division with some exchanges.
Greater Depth Complete calculations so that they match given statements using division with exchanges.

More Year 4 Multiplication and Division resources.

Did you like this resource? Don't forget to review it on our website.

1a. Three children have answered $48 \div 4$.

10	1	1
10	1	1
10	1	1
10	1	1
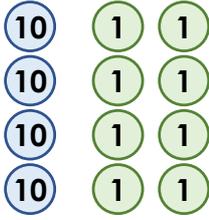
Holly	Elise	Jack
11	12	13

Who is correct? Explain how you know.

1b. Three children have answered $84 \div 4$.

10	10	1
10	10	1
10	10	1
10	10	1
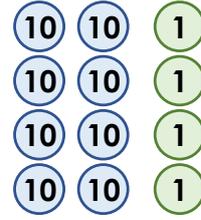
Olive	Frank	Kari
22	21	23

Who is correct? Explain how you know.

2a. Which calculation is the odd one out?

$88 \div 4 =$

$55 \div 5 =$

$44 \div 2 =$

$66 \div 3 =$

2b. Which calculation is the odd one out?

$44 \div 4 =$

$50 \div 5 =$

$22 \div 2 =$

$33 \div 3 =$

3a. Match the following statements with the correct card.

Ellie — My calculation is solved correctly.

Georgia — My calculation is solved incorrectly.

$44 \div 4 = 11$

$33 \div 3 = 9$

3b. Match the following statements with the correct card.

Cameron — My calculation is solved correctly.

Harriet — My calculation is solved incorrectly.

$66 \div 6 = 11$

$66 \div 3 = 21$

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Reasoning and Problem Solving – Divide 2 Digits by 1 Digit 1 – Year 4 Developing

4a. Three children have answered 90 ÷ 5.
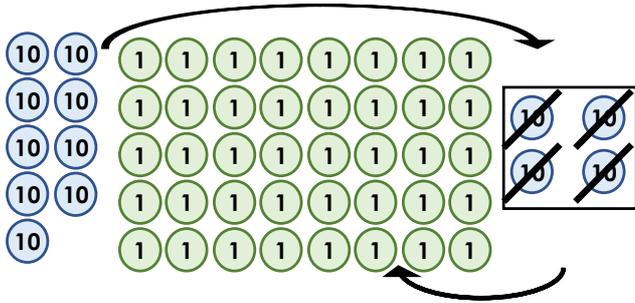
Bill	Jane	Tom
15	9	18

Who is correct? Explain how you know.

4b. Three children have answered 78 ÷ 6.
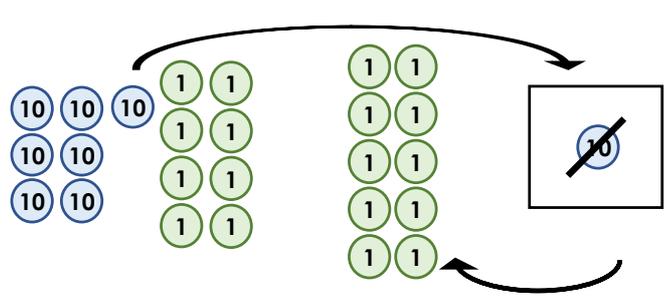
Molly	Ben	Lara
13	14	12

Who is correct? Explain how you know.

5a. Which calculation is the odd one out?

56 ÷ 4 =   70 ÷ 5 =

45 ÷ 3 =

84 ÷ 6 =   98 ÷ 7 =

5b. Which calculation is the odd one out?

48 ÷ 3 =   64 ÷ 4 =

96 ÷ 6 =

80 ÷ 5 =   84 ÷ 7 =

6a. Match the following statements with the correct card.

Harry — My calculation needs no exchange.

Sandra — My calculation is solved incorrectly.

Paul — My calculation needs to exchange.

96 ÷ 8 = 12	65 ÷ 6 = 11	84 ÷ 4 = 21

6b. Match the following statements with the correct card.

Alice — My calculation needs no exchange.

Daniel — My calculation is solved incorrectly.

Kavita — My calculation needs to exchange.

84 ÷ 7 = 12	88 ÷ 4 = 22	92 ÷ 4 = 24

7a. Three children have completed a calculation where both missing digits are the same. They have recorded the digit that they think is missing.

$$4 \boxed{} \div 9 = \boxed{}$$

Amy	John	Karl
6	5	7

Who is correct? Explain how you know.

GD

R

7b. Three children have completed a calculation where both missing digits are the same. They have recorded the digit that they think is missing.

$$6 \boxed{} \div 6 = 1 \boxed{}$$

May	Tim	Liam
2	1	0

Who is correct? Explain how you know.

GD

R

8a. Create three calculations where a 2-digit number is divided by a 1-digit number to make the following statements true.

- The answer to calculation B is double the answer to calculation A.

- The answer to calculation C is less than calculation B but greater than calculation A.

A.   B.   C.

GD

PS

8b. Create three calculations where a 2-digit number is divided by a 1-digit number to make the following statements true.

- The answer to calculation B is three times the answer to calculation A.

- The answer to calculation C is less than calculation B but greater than calculation A.

A.   B.   C.

GD

PS

9a. Complete the calculations and match the following statements.

Nick — My answer is an even number.

Leila — My answer is less than 12.

Patsy — My calculation creates a number with the digit sum of 4.

$$\boxed{} 9 \div 9 = 1 \boxed{} \qquad 9\,1 \div 7 = \boxed{} \qquad \boxed{} 4 \div 6 = 1 \boxed{}$$

GD

PS

9b. Complete the calculations and match the following statements.

Victor — My answer creates a number with the digit sum of 3.

Joshua — My answer is greater than 12.

Graham — My answer has the same tens and ones digit.

$$\boxed{} 1 \div 7 = 1 \boxed{} \qquad \boxed{} 7 \div 7 = 1 \boxed{} \qquad 72 \div 6 = \boxed{}$$

GD

PS

Reasoning and Problem Solving
Divide 2 Digits by 1 Digit 1

Developing

1a. Elise is correct because 48 ÷ 4 = 12.

2a. 55 ÷ 5 = 11 because the other calculations have an answer of 22.

3a. Ellie; 44 ÷ 4 = 11, Georgia; 33 ÷ 3 = 9

Expected

4a. Tom is correct because 90 ÷ 5 = 18.

5a. 45 ÷ 3 = 15 because the other calculations have an answer of 14.

6a. Harry; 84 ÷ 4 = 21, Sandra; 65 ÷ 6 = 11, Paul; 96 ÷ 8 = 12

Greater Depth

7a. John is correct because 45 ÷ 9 = 5.

8a. Various answers, for example;
A. 72 ÷ 6 = 12; B. 72 ÷ 3 = 24; C. 65 ÷ 5 = 13

9a. Nick; 84 ÷ 6 = 14, Leila; 99 ÷ 9 = 11, Patsy; 91 ÷ 7 = 13

Reasoning and Problem Solving
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Developing

1b. Frank is correct because 84 ÷ 4 = 21.

2b. 50 ÷ 5 = 10 because the other calculations have an answer of 11.

3b. Cameron; 66 ÷ 6 = 11, Harriet; 66 ÷ 3 = 21.

Expected

4b. Molly is correct because 78 ÷ 6 = 13.

5b. 84 ÷ 7 = 12 because the other calculations have an answer of 16.

6b. Alice; 88 ÷ 4 = 22, Daniel; 92 ÷ 4 = 24, Kavita; 84 ÷ 7 = 12

Greater Depth

7b. Liam is correct because 72 ÷ 6 = 12.

8b. Various answers, for example;
A. 84 ÷ 7 = 12; B. 72 ÷ 2 = 36; C. 69 ÷ 3 = 23

9b. Victor; 72 ÷ 6 = 12, Joshua; 91 ÷ 7 = 13, Graham; 77 ÷ 7 = 11

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Reasoning and Problem Solving – Divide 2 Digits by 1 Digit 1 **ANSWERS**