

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 \times 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.

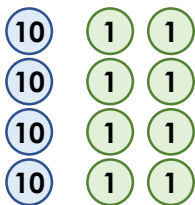
More [Year 4 Multiplication and Division](#) resources.

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

Divide 2 Digits by 1 Digit 1

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



Holly **Elise** **Jack**

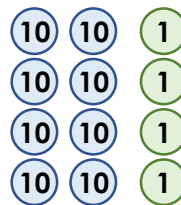
11 12 13

Who is correct? Explain how you know.



R

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



Olive **Frank** **Kari**

22 21 23

Who is correct? Explain how you know.



R

2a. Which calculation is the odd one out?

$88 \div 4 =$

$55 \div 5 =$

$44 \div 2 =$

$66 \div 3 =$



PS

2b. Which calculation is the odd one out?

$44 \div 4 =$

$50 \div 5 =$

$22 \div 2 =$

$33 \div 3 =$



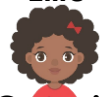
PS

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



Ellie

My calculation is solved correctly.



Georgia

My calculation is solved incorrectly.

$44 \div 4 = 11$

$33 \div 3 = 9$



PS

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



Cameron

My calculation is solved correctly.



Harriet

My calculation is solved incorrectly.

$66 \div 6 = 11$

$66 \div 3 = 21$

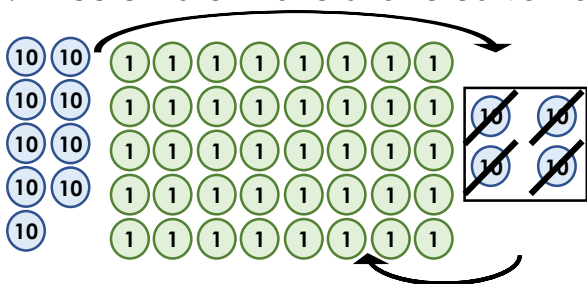


PS

Divide 2 Digits by 1 Digit 1

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4a. Three children have answered $90 \div 5$.



Bill

Jane

Tom

15

9

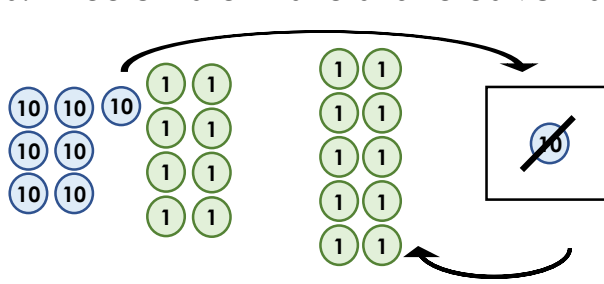
18

Who is correct? Explain how you know.



R

4b. Three children have answered $78 \div 6$.



Molly

Ben

Lara

13

14

12

Who is correct? Explain how you know.



R

5a. Which calculation is the odd one out?

$56 \div 4 =$

$70 \div 5 =$

$45 \div 3 =$

$84 \div 6 =$

$98 \div 7 =$



PS

5b. Which calculation is the odd one out?

$48 \div 3 =$

$64 \div 4 =$

$96 \div 6 =$

$80 \div 5 =$

$84 \div 7 =$



PS

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



My calculation needs no exchange.



My calculation is solved incorrectly.

Sandra

My calculation needs to exchange.

Paul

$96 \div 8 = 12$

$65 \div 6 = 11$

$84 \div 4 = 21$



PS

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



My calculation needs no exchange.



My calculation is solved incorrectly.

Daniel

My calculation needs to exchange.

Kavita

$84 \div 7 = 12$

$88 \div 4 = 22$

$92 \div 4 = 24$



PS

Divide 2 Digits by 1 Digit 1

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

$$4 \square \div 9 = \square$$

Amy

John

Karl

6

5

7

Who is correct? Explain how you know.



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.

$$6 \square \div 6 = 1 \square$$

May

Tim

Liam

2

1

0

Who is correct? Explain how you know.



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.



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.



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.

$$\square 9 \div 9 = 1 \square$$

$$91 \div 7 = \square$$

$$\square 4 \div 6 = 1 \square$$



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.

$$\square 1 \div 7 = 1 \square$$

$$\square 7 \div 7 = 1 \square$$

$$72 \div 6 = \square$$



PS

Reasoning and Problem Solving Divide 2 Digits by 1 Digit 1

Developing

- 1a. Elise is correct because $48 \div 4 = 12$.
2a. $55 \div 5 = 11$ because the other calculations have an answer of 22.
3a. Ellie; $44 \div 4 = 11$, Georgia; $33 \div 3 = 9$

Expected

- 4a. Tom is correct because $90 \div 5 = 18$.
5a. $45 \div 3 = 15$ because the other calculations have an answer of 14.
6a. Harry; $84 \div 4 = 21$, Sandra; $65 \div 6 = 11$, Paul; $96 \div 8 = 12$

Greater Depth

- 7a. John is correct because $45 \div 9 = 5$.
8a. Various answers, for example;
A. $72 \div 6 = 12$; B. $72 \div 3 = 24$; C. $65 \div 5 = 13$
9a. Nick; $84 \div 6 = 14$, Leila; $99 \div 9 = 11$, Patsy; $91 \div 7 = 13$

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Developing

- 1b. Frank is correct because $84 \div 4 = 21$.
2b. $50 \div 5 = 10$ because the other calculations have an answer of 11.
3b. Cameron; $66 \div 6 = 11$, Harriet; $66 \div 3 = 21$.

Expected

- 4b. Molly is correct because $78 \div 6 = 13$.
5b. $84 \div 7 = 12$ because the other calculations have an answer of 16.
6b. Alice; $88 \div 4 = 22$, Daniel; $92 \div 4 = 24$, Kavita; $84 \div 7 = 12$

Greater Depth

- 7b. Liam is correct because $72 \div 6 = 12$.
8b. Various answers, for example;
A. $84 \div 7 = 12$; B. $72 \div 2 = 36$; C. $69 \div 3 = 23$
9b. Victor; $72 \div 6 = 12$, Joshua; $91 \div 7 = 13$, Graham; $77 \div 7 = 11$