Reasoning and Problem Solving Step 6: Divide 4-Digits by 1-Digit

National Curriculum Objectives:

Mathematics Year 5: (5C7b) <u>Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context</u>

Differentiation:

Questions 1, 4 and 7 (Reasoning)

Developing Decide whether a statement is correct when comparing calculations using known division facts from 2, 3 and 5 times tables and explain why.

Expected Decide whether a statement is correct when comparing calculations using known division facts from 4, 6 and 8 times tables and explain why.

Greater Depth Decide whether a statement is correct when comparing calculations using known division facts from 7 and 9 times tables and explain why.

Questions 2, 5 and 8 (Reasoning)

Developing Explain errors in a calculation method with up to one error using known division facts from 2, 3 and 5 times tables.

Expected Explain errors in a calculation method with up to two errors using known division facts from 4, 6 and and 8 times tables.

Greater Depth Explain errors in a calculation method with up to three errors using known division facts from 7 and 9 times tables.

Questions 3, 6 and 9 (Problem Solving)

Developing Solve word problems using known division facts from 2, 3 and 5 times tables. Expected Solve word problems using known division facts from 4, 6 and 8 times tables. Greater Depth Solve word problems using known division facts from 7 and 9 times tables.

More resources which follow the same small steps as White Rose.

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



Divide 4-Digits by 1-Digit

Divide 4-Digits by 1 Digit

1a. Isabel is comparing two calculations.

She writes:

 $3,123 \div 3 > 4,525 \div 5$

1b. Kelly is comparing two calculations.

She writes:

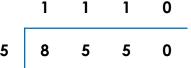
$$2.124 \div 2 < 5.535 \div 5$$

Is she correct? Explain how you know.

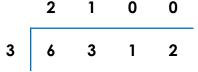
Is she correct? Explain how you know.



2a. Kate completes the following calculation.



2b. Johnny completes the following calculation.



Explain her mistake.

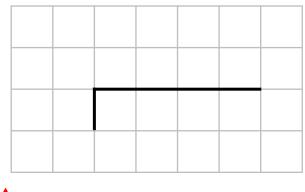
Calculate the correct answer.

Explain his mistake.

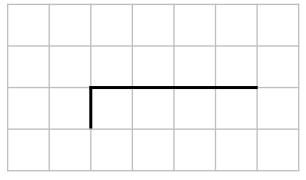
Calculate the correct answer.



3a. Rulers come in packs of 5. A box contains 2,505 rulers. How many packs are there in a box? Show your method.



3b. Ice Iollies come in boxes of 3. A crate contains 1,269 ice Iollies. How many boxes are there in a crate? Show your method.





Divide 4-Digits by 1-Digit

Divide 4-Digits by 1 Digit

4a. Belle is comparing two calculations.

 $2.136 \div 8 > 2.526 \div 6$

She writes:

4b. Alice is comparing two calculations.

She writes:

 $3.288 \div 8 > 2.424 \div 6$

Is she correct? Explain how you know.

Is she correct? Explain how you know.



5a. Ben completes the following calculation.

> 2 0 1 2 4

5b. Josh completes the following calculation.

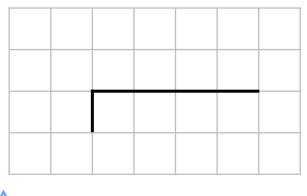
1

Explain his mistake. Calculate the correct answer.

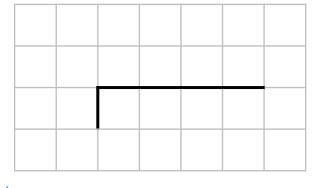
Explain his mistake.

Calculate the correct answer.

6a. Balloons come in packets of 8. A box contains 2,112 balloons. How many packets are there in a box? Show your method.



6b. Cereal bars come in boxes of 6. A crate contains 1,440 cereal bars. How many boxes are there in a crate? Show your method.





Divide 4-Digits by 1-Digit

Divide 4-Digits by 1 Digit

7a. Lucy is comparing two calculations.

 $2.214 \div 9 > 2.247 \div 7$

She writes:

7b. Sinead is comparing two calculations.

She writes:

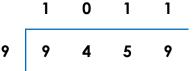
$$4,606 \div 7 > 6,795 \div 9$$

Is she correct? Explain how you know.

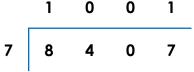
Is she correct? Explain how you know.



8a. Freddie completes the following calculation.



8b. Theo completes the following calculation.



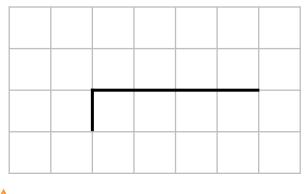
Explain his mistake.

Calculate the correct answer.

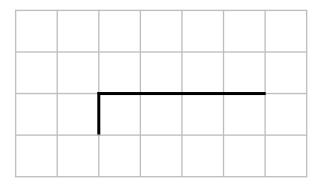
Explain his mistake.
Calculate the correct answer.



9a. Cupcakes come in trays of 9. A box contains 1,125 cupcakes. How many trays are there in a box? Show your method.



9b. Cookies come in packets of 7. A box contains 1,750 cookies. How many packets are there in a box? Show your method.







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Developing

1a. She is correct. 1,041 > 905

2a. She did not exchange the remaining 3 thousands into 30 hundreds. The correct answer is 1,710.

3a. 501 packs

Expected

4a. She is incorrect. 267 < 421

5a. He did not exchange the 2 hundreds into 20 tens. The correct answer is 2,061.

6a. 264 packets

Greater Depth

7a. She is incorrect. 246 < 321

8a. He did not exchange the 4 hundreds into 40 tens. The correct answer is 1,051.

9a. 125 trays

<u>Developing</u>

1b. She is correct. 1,062 < 1,107

2b. He did not exchange the 1 ten into 10 ones. The correct answer is 2,104.

3b. 423 boxes

Expected

4b. She is correct. 411 > 404

5b. He did not exchange the remaining 2 thousands into 20 hundreds. The correct answer is 1.411.

6b. 240 boxes

Greater Depth

7b. She is incorrect. 658 < 755

8b. He did not exchange the remaining 1 thousand into 10 hundreds. The correct answer is 1,201.

9b. 250 packets

