

Homework/Extension

Step 5: Long Division 1

National Curriculum Objectives:

Mathematics Year 6: (6C7c) [Divide numbers up to 4 digits by a 2-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding as appropriate for the context](#)

Mathematics Year 6: (6C8) [Solve problems involving addition, subtraction, multiplication and division](#)

Differentiation:

Questions 1, 4 and 7 (Varied Fluency)

Developing Complete long division calculations using the expanded and formal methods to divide 3-digit numbers by a 2-digit number no greater than 20. Key multiplication facts given. No remainders. Calculations partially complete.

Expected Complete long division calculations using the expanded and formal methods to divide 3-digit numbers by a 2-digit number. Key multiplication facts grid partially completed. No remainders. Calculations partially complete.

Greater Depth Complete long division calculations using the expanded and formal methods to divide 3-digit numbers by a 2-digit number. No key multiplication facts grids given. No remainders.

Questions 2, 5 and 8 (Varied Fluency)

Developing Calculate and identify the correct result of long division calculations dividing a 3-digit number by 2-digit numbers no greater than 20. Key multiplication facts given. No remainders.

Expected Calculate and identify the correct result of long division calculations dividing a 3-digit number by 2-digit numbers. Key multiplication facts grid partially completed. No remainders.

Greater Depth Calculate and identify the correct result of long division calculations dividing a 3-digit number by 2-digit numbers. No key multiplication facts grids given. No remainders.

Questions 3, 6 and 9 (Reasoning and Problem Solving)

Developing Identify and explain errors in long division calculations dividing a 3-digit number by 2-digit numbers no greater than 20. Key multiplication facts given. No remainders.

Expected Identify and explain errors in long division calculations dividing a 3-digit number by 2-digit numbers. Key multiplication facts grid partially completed. No remainders.

Greater Depth Identify and explain errors in long division calculations dividing a 3-digit number by 2-digit numbers. No key multiplication facts grids given. No remainders.

More [Year 6 Four Operations](#) resources.

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

Long Division 1

1. Leon is solving these division problems. He is using a different method for each calculation. Complete his working out.

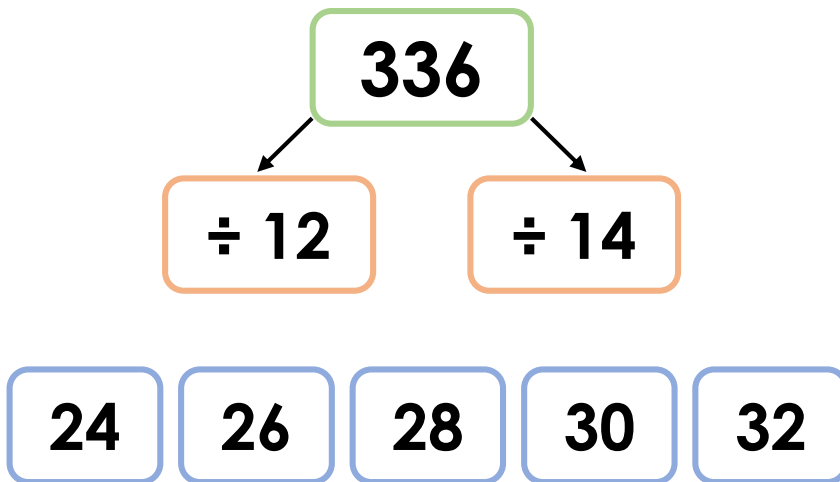
[illegible]

			0	2						
1	3	2 ³	3 ¹	8						
		2	6	↓						
			7	8						

Helpful facts		
1	$\times 13$	= 13
2	$\times 13$	= 26
3	$\times 13$	= 39
4	$\times 13$	= 52
5	$\times 13$	= 65
10	$\times 13$	= 130

VF
HW/Ext

2. Draw arrows to show the result of dividing 336 by 12 and 14.



Helpful facts		
1	$\times 12 =$	12
2	$\times 12 =$	24
3	$\times 12 =$	36
4	$\times 12 =$	48
5	$\times 12 =$	60
10	$\times 12 =$	120

Helpful facts	
$1 \times 14 =$	14
$2 \times 14 =$	28
$3 \times 14 =$	42
$4 \times 14 =$	56
$5 \times 14 =$	70
$10 \times 14 =$	140

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HW/Ext

3. Harrisa says,



If I divide 540 by 12, I get a multiple of 9.

Ellie says,



**I'll get the same if I divide
your number by 18.**

Is Ellie correct? Explain your answer.

Helpful facts		
1	$\times 12 =$	12
2	$\times 12 =$	24
3	$\times 12 =$	36
4	$\times 12 =$	48
5	$\times 12 =$	60
10	$\times 12 =$	120

Helpful facts	
$1 \times 18 =$	18
$2 \times 18 =$	36
$3 \times 18 =$	54
$4 \times 18 =$	72
$5 \times 18 =$	90
$10 \times 18 =$	180

RPS
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Long Division 1

4. Tom is solving these division problems. He is using a different method for each calculation. Complete his working out.

[illegible]
$$20 \times 14 = 280$$


5. Draw arrows to show the result of dividing 432 by 12 and 27.


$$20 \times 27 = 540$$


6. Annabelle says,



Is Tom correct? Explain your answer.

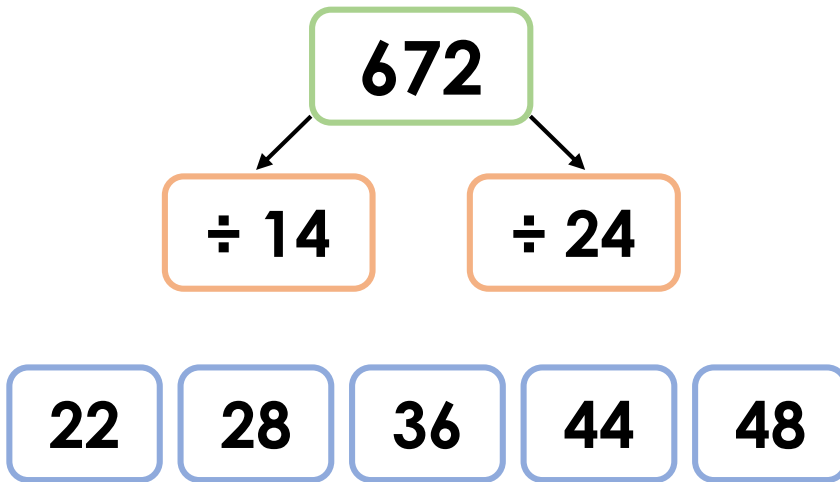
$$20 \times 16 = 320$$
$$20 \times 18 = 360$$


Long Division 1

7. Jack is solving these division problems. He is using a different method for each calculation. Complete his working out.

[illegible][illegible]VF
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8. Draw arrows to show the result of dividing 672 by 14 and 24.

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9. Lucas says,



If I divide 756 by 27, I get a multiple of 4.

Harriet says,



I'll get the same if I divide your number by 18 or 21.

Is Harriet correct? Explain your answer.

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Long Division 1

Developing

1. $195 \div 13 = 15$; $338 \div 13 = 26$
2. $336 \div 12 = 28$; $336 \div 14 = 24$
3. Ellie is incorrect, if 540 is divided by 18, the answer is 30 which is not a multiple of 9.

Expected

4. $196 \div 14 = 14$; $392 \div 14 = 28$
5. $432 \div 12 = 36$; $432 \div 27 = 16$
6. Tom is incorrect. When 576 is divided by 16, the answer is 36 which is a multiple of 6, but if 576 is divided by 18, the answer is 32 which is not a multiple of 6.

Greater Depth

7. $437 \div 19 = 23$; $513 \div 19 = 27$
8. $672 \div 14 = 48$; $672 \div 24 = 28$
9. Harriet is incorrect. When 756 is divided by 21, the answer is 36 which is a multiple of 4, but if 756 is divided by 18, the result is 42 which is not a multiple of 4.