

Homework/Extension

Step 3: Short Division

National Curriculum Objectives:

Mathematics Year 6: (6C7b) [Divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context](#)

Differentiation:

Questions 1, 4 and 7 (Varied Fluency)

Developing Match each statement to the correct answer when dividing a 3-digit or 4-digit number by a 1-digit number using the formal method of short division with up to 1 exchange. Whole number answers.

Expected Match each statement to the correct answer when dividing a 4-digit number by a 1-digit or 2-digit number using linear and formal short division methods with up to 2 exchanges with some use of remainders.

Greater Depth Match each statement to the correct answer when dividing a 4-digit number by a 2-digit number using linear and formal short division methods with multiple exchanges. Answers include remainders.

Questions 2, 5 and 8 (Varied Fluency)

Developing Use division of a 3-digit or 4-digit number by a 1-digit number to solve a true or false problem using the formal method of short division with up to 1 exchange. Whole number answers.

Expected Use division of a 4-digit number by a 1-digit or 2-digit number to solve a true or false problem using linear and formal short division methods with up to 2 exchanges with some use of remainders.

Greater Depth Use division of a 4-digit number by any 2-digit number to solve a true or false problem using linear and formal short division methods with multiple exchanges. Answers include remainders.

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

Developing Explain which method of short division is correct when dividing a 3-digit or 4-digit number by a 1-digit number using the formal method of short division with up to 1 exchange. Whole number answers.

Expected Explain which method of short division is correct when dividing a 4-digit number by a 1-digit or 2-digit number using linear and formal short division methods with up to 2 exchanges with some use of remainders.

Greater Depth Explain which method of short division is correct when dividing 4-digit number by any 2-digit number to solve a problem using linear and formal short division methods with multiple exchanges. Answers include remainders.

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Short Division

1. Match the calculation to the correct answer.

a. $4 \overline{) 8, 244}$

b. $3 \overline{) 6, 393}$

c. $6 \overline{) 6, 360}$

d. $2 \overline{) 8, 402}$

1,060

4,201

2,061

2,131



VF
HW/Ext

2. True or false?



Glue sticks are sold in packs of 5. Reception class need 350 glue sticks for September. The school office think 70 packs will be enough.



VF
HW/Ext

3. Sami and Vynia are using short division to solve $4,024 \div 4$.



Sami

$$\begin{array}{r} 1,006 \\ 4 \overline{) 4,024} \end{array}$$



Vynia

$$\begin{array}{r} 1,001 \\ 4 \overline{) 4,024} \end{array}$$

Who do you agree with? Prove it.



RPS
HW/Ext

Short Division

4. Match the calculation to the correct answer.

a. $15 \overline{)4,535}$

b. $8 \overline{)4,567}$

c. $3,648 \div 12 =$

d. $14 \overline{)4,236}$

570 r 7

304

302 r 5

302 r 8



VF
HW/Ext

5. True or false?



Flowers are sold in trays of 12. The school need 2,450 flowers to plant in the reception play area. The school caretaker thinks 204 trays will be enough.



VF
HW/Ext

6. Jacob and Amelia are using short division to solve $6,728 \div 16$.



Jacob

$$\begin{array}{r} 420 \\ 16 \overline{)6,728} \end{array}$$



Amelia

$$\begin{array}{r} 420 \text{ r } 8 \\ 16 \overline{)6,728} \end{array}$$

Who do you agree with? Prove it.



RPS
HW/Ext

Short Division

7. Match the calculation to the correct answer.

a. $32 \overline{) 7,795}$

b. $19 \overline{) 8,080}$

c. $5,297 \div 22 =$

d. $27 \overline{) 6,809}$

240 r 17

425 r 5

252 r 5

243 r 19



VF
HW/Ext

8. True or false?



Balloons are sold in packs of 24. The charity organisers need 8,550 for a fun run. The organisers think 356 packs will be enough.



VF
HW/Ext

9. Alexis and Stefan are using short division to solve $7,459 \div 23$.



Alexis

$$\begin{array}{r} 324 \text{ r } 20 \\ 23 \overline{) 7,459} \end{array}$$



Stefan

$$\begin{array}{r} 324 \text{ r } 7 \\ 23 \overline{) 7,459} \end{array}$$

Who do you agree with? Prove it.



RPS
HW/Ext

Homework/Extension

Short Division

Developing

1. **A = 2,061; B = 2,131; C = 1,060 ; D = 4,201**

2. **True**

3. **Sami is correct as Vynia has not correctly calculated the final digit ($24 \div 4 = 6$, not 1).**

$$\begin{array}{r} 1, 0 0 \mathbf{6} \\ 4 \overline{) 4, 0 2 \mathbf{4}} \end{array}$$

Expected

4. **A = 302 r5; B = 570 r7; C = 304 ; D = 302 r8**

5. **False, the school will need 205 trays.**

6. **Amelia is correct as she has included the remainder 8 in her answer.**

$$\begin{array}{r} 4 2 0 \mathbf{r 8} \\ 1 6 \overline{) 6, \mathbf{6} 7^3 2 8} \end{array}$$

Greater Depth

7. **A = 243 r19; B = 425 r5 ; C = 240 r17 ; D = 252 r5**

8. **False, the organisers will need 357 packs.**

9. **Stefan is correct as he has included the correct remainder ($99 \div 23 = 4 \text{ r}7$, not $4 \text{ r}20$)**

$$\begin{array}{r} 3 2 4 \mathbf{r 7} \\ 2 3 \overline{) 7, \mathbf{7} 4^5 5^9 9} \end{array}$$