

## Week 4

### This week in a nutshell:

Students will be using several written methods this week. Many methods are available, and students should be encouraged to verify their answers by using a method that is not necessarily their first choice, as this is an excellent way of deepening and broadening subject knowledge. As this week does rely heavily on writing, some students may need templates or extra time so that the focus is on efficient calculation strategies.

**Question 1:** Written multiplication

**Question 2:** Using powers

**Question 3:** Written division

**Question 4:** Column addition with decimals

**Question 5:** Column subtraction with decimals

The questions aim to develop and deepen understanding over the week. Due to the necessity of the topics covered this week, there is an emphasis on the interchangeability of command words, and language flexibility. It may be worth taking some extra time this week to make sure your students are developing their mathematical literacy.

### This week's ideas for class discussion include:

Question 1: **Written multiplication**

- How many different methods of written multiplication can you think of?

Question 2: **Using powers**

- Why are powers a useful mathematical notation?

Question 3: **Written division**

- What written methods are available for division?

Question 4: **Column addition with decimals**

- Is column addition different with decimals than with integers?

Question 5: **Column subtraction with decimals**

- Under what circumstances does care have to be taken when doing column subtraction with decimals?

## Week 4: Day 1

1) Use a written method to calculate  $21 \times 63$

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2) Evaluate  $2^4$

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3 What is 370 divided by 5?

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4) Complete the column addition for these decimal numbers.

$$\begin{array}{r} 8 \quad . \quad 2 \\ + \quad 1 \quad . \quad 7 \\ \hline \\ \hline \end{array}$$


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5) Complete the column subtraction for these decimal numbers.

$$\begin{array}{r} 7 \quad . \quad 5 \\ - \quad 4 \quad . \quad 4 \\ \hline \\ \hline \end{array}$$


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## Week 4: Day 1 Answers

- 1) Use a written method to calculate  $21 \times 63$

1323

- 2) Evaluate  $2^4$

16

- 3 What is 370 divided by 5?

74

- 4) Complete the column addition for these decimal numbers.

$$\begin{array}{r} 8 \quad . \quad 2 \\ + \quad 1 \quad . \quad 7 \\ \hline 9 \quad . \quad 9 \\ \hline \end{array}$$

- 5) Complete the column subtraction for these decimal numbers.

$$\begin{array}{r} 7 \quad . \quad 5 \\ - \quad 4 \quad . \quad 4 \\ \hline 3 \quad . \quad 1 \\ \hline \end{array}$$

## Week 4: Day 2

1) Use a written method to calculate  $105 \times 27$

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2) Calculate  $4^3$

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3) List the Share 720 into 18 equal parts.

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4) Complete the column addition for these decimal numbers.

$$\begin{array}{r} 27.8 \\ + 41.5 \\ \hline \\ \hline \end{array}$$

5) Complete the column subtraction for these decimal numbers.

$$\begin{array}{r} 54.1 \\ - 32.7 \\ \hline \\ \hline \end{array}$$

## Week 4: Day 2 Answers

- 1) Use a written method to calculate  $105 \times 27$

2835

- 2) Calculate  $4^3$

64

- 3) Share 720 into 18 equal parts.

40

- 4) Complete the column addition for these decimal numbers.

$$\begin{array}{r} 27.8 \\ + 41.5 \\ \hline 69.3 \end{array}$$

- 5) Complete the column subtraction for these decimal numbers.

$$\begin{array}{r} 54.1 \\ - 32.7 \\ \hline 21.4 \end{array}$$

## Week 4: Day 3

1) Use a written method to calculate  $320 \times 17$

2) Work out  $2^5$

3) Determine the quotient and remainder when 7453 is divided by 17.

4) Use column addition to work out  
 $46.13 + 17.06$

+

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5) Use column subtraction to work out  
 $56.15 - 7.06$

-

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## Week 4: Day 3 Answers

- 1) Use a written method to calculate  $320 \times 17$

5440

- 2) Work out  $2^5$

32

- 3) Determine the quotient and remainder when 7453 is divided by 17.

438 r7

- 4) Use column addition to work out

$$\begin{array}{r} 46.13 + 17.06 \\ 4 \ 6 \ . \ 1 \ 3 \\ + \ 1 \ 7 \ . \ 0 \ 6 \\ \hline 6 \ 3 \ . \ 1 \ 9 \end{array}$$

- 5) Use column subtraction to work out

$$\begin{array}{r} 56.15 - 7.06 \\ 5 \ 6 \ . \ 1 \ 5 \\ - \ \ 7 \ . \ 0 \ 6 \\ \hline 4 \ 9 \ . \ 0 \ 9 \end{array}$$

## Week 4: Day 4

1) Use a written method to calculate  $99 \times 89$

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2) Determine  $4^5$

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3) Determine the quotient and remainder when 3354 is divided by 23.

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4) Use column addition to work out

$$7.99 + 8.099$$

+

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5) Use column subtraction to work out

$$98.8 - 41.09$$

-

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## Week 4: Day 4 Answers

- 1) Use a written method to calculate  $99 \times 89$

8811

- 2) Determine  $4^5$

1024

- 3) Determine the quotient and remainder when 3354 is divided by 23.

145 r19

- 4) Use column addition to work out

$$\begin{array}{r}
 7.99 \quad + \quad 8.099 \\
 \phantom{+} \quad 8 \quad . \quad 0 \quad 9 \quad 9 \\
 + \quad 7 \quad . \quad 9 \quad 9 \quad 0 \\
 \hline
 1 \quad 6 \quad . \quad 0 \quad 8 \quad 9 \\
 \hline
 \end{array}$$

- 5) Use column subtraction to work out

$$\begin{array}{r}
 98.8 \quad - \quad 41.09 \\
 \phantom{-} \quad 9 \quad 8 \quad . \quad 8 \quad 0 \\
 - \quad 4 \quad 1 \quad . \quad 0 \quad 9 \\
 \hline
 5 \quad 7 \quad . \quad 7 \quad 1 \\
 \hline
 \end{array}$$

## Week 4: Day 5

1) Use a written method to calculate  $444 \times 555$

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2) Find the value of  $10^6$

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3) Determine the quotient and remainder when 1363 is divided by 29

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4) Use column addition to work out

$$66.8 + 108.22$$

+

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5) Use column subtraction to work out

$$230.05 - 172.6$$

-

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## Week 4: Day 5 Answers

- 1) Use a written method to calculate  $444 \times 555$

246420

- 2) Find the value of  $10^6$

1 000 000

- 3) Determine the quotient and remainder when 1363 is divided by 29.

47 (remainder 0)

- 4) Use column addition to work out

$$\begin{array}{r}
 66.8 \quad + \quad 108.22 \\
 1 \ 0 \ 8 \ . \ 2 \ 2 \\
 + \quad 6 \ 6 \ . \ 8 \ 0 \\
 \hline
 1 \ 7 \ 5 \ . \ 0 \ 2
 \end{array}$$

- 5) Use column subtraction to work out

$$230.05 - 172.6$$

$$\begin{array}{r}
 2 \ 3 \ 0 \ . \ 0 \ 5 \\
 - \ 1 \ 7 \ 2 \ . \ 6 \ 0 \\
 \hline
 5 \ 7 \ . \ 4 \ 5
 \end{array}$$

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