

## Week 2

### This week in a nutshell:

Start the week with a discussion on place value as an introduction to Q1. Students may require some examples before they feel confident to work independently on Q2. Encourage students to use mental or written arithmetic for Q3 but consider the use of calculators to enable weaker students to focus on the process. At the end of the week see if any students can link Q4 and Q2. Discuss rules of divisibility for Q5 and allow the use of calculators as a final check only.

**Question 1:** Writing a decimal as a percentage

**Question 2:** Finding the  $n^{\text{th}}$  term

**Question 3:** Sharing in a given ratio

**Question 4:** Completing a table of values

**Question 5:** Identifying multiples

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

Question 1: **Writing a decimal as a percentage**

- **Task:** Write down the rule for converting decimals into percentages. Now convert the following decimals into percentages: 0.0003, 0.003, 0.03, 0.3, 3, 30. Discuss your answers.

Question 2: **Finding the  $n^{\text{th}}$  term**

- The teacher writes the sequence 17, 15, 13, 11 ... on the board. Simon says the  $n^{\text{th}}$  term formula is  $2n + 15$ . Aashir says it is  $17 - 2n$ . Rhumari says it is  $19 - 2n$ . Emily says it is  $-2n + 19$ . Who is correct and what misunderstandings are the others experiencing?

Question 3: **Sharing in a given ratio**

- "Find the larger amount when 280g is shared in the ratio 1:34". Discuss the fastest way to find the solution to this question without using a calculator.

Question 4: **Completing a table of values**

- **Task:** review your skills at arithmetic involving negative numbers.

Question 5: **Identifying multiples**

- What is a factor and how does it relate to multiples?
- What different rules of divisibility do you know?

## Week 2: Day 1

1) Write 0.5 as a percentage.

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2) Find the  $n^{\text{th}}$  term rule:

2, 5, 8, 11, 14, ...

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3) Find the larger amount when 42 is shared in the ratio 5:2

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4) Complete the table of values for the linear relationship,

$$y = 4x - 3$$

$x$	1	2	3
$y$			

---

5) Which number is not a multiple of 4?

452

366

784

## Week 2: Day 1 Answers

- 1) Write 0.5 as a percentage.

50%

- 2) Find the  $n^{\text{th}}$  term rule:

$3n - 1$

2, 5, 8, 11, 14, ...

- 3) Find the larger amount when 42 is shared in the ratio 5:2

30

- 4) Complete the table of values for the linear relationship,

$$y = 4x - 3$$

$x$	1	2	3
$y$	1	5	9

- 5) Which number is not a multiple of 4?

452

366

784

## Week 2: Day 2

1) Write 0.07 as a percentage.

---

2) Find the  $n^{\text{th}}$  term rule:

1, 5, 9, 13, 17, ...

---

3) Find the smaller amount when 56 is shared in the ratio 5:3

---

4) Complete the table of values for the linear relationship,

$$y = x - 7$$

$x$	-1	0	1
$y$			

---

5) Which number is not a multiple of 6?

528

454

456

## Week 2: Day 2 Answers

- 1) Write 0.07 as a percentage.

7%

- 2) Find the  $n^{\text{th}}$  term rule:

$4n - 3$

1, 5, 9, 13, 17, ...

- 3) Find the smaller amount when 56 is shared in the ratio 5:3

21

- 4) Complete the table of values for the linear relationship,

$$y = x - 7$$

$x$	-1	0	1
$y$	-8	-7	-6

- 5) Which number is not a multiple of 6?

528

454

456

## Week 2: Day 3

1) Write 0.62 as a percentage.

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2) Find the  $n^{\text{th}}$  term rule:

31, 28, 25, 22, 19, ...

---

3) Find the larger amount when 64 is shared in the ratio 3:1

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4) Complete the table of values for the linear relationship,

$$y = 5 - 2x$$

$x$	0	1	2
$y$			

---

5) Which number is not a multiple of 9?

1701

4023

2382

## Week 2: Day 3 Answers

- 1) Write 0.62 as a percentage.

62%

- 2) Find the  $n^{\text{th}}$  term rule:

$34 - 3n$

31, 28, 25, 22, 19, ...

- 3) Find the larger amount when 64 is shared in the ratio 3:1

48

- 4) Complete the table of values for the linear relationship,

$$y = 5 - 2x$$

$x$	0	1	2
$y$	5	3	1

- 5) Which number is not a multiple of 9?

1701

4023

2382

## Week 2: Day 4

1) Write 0.175 as a percentage.

---

2) Find the  $n^{\text{th}}$  term rule:

0, 7, 14, 21, 28, ...

---

3) Find the smaller amount when 95 is shared in the ratio 3:2

---

4) Complete the table of values for the linear relationship,

$$y = 4x + 2$$

$x$	-2	-1	0
$y$			

---

5) Which number is not a multiple of 11?

396

454

231



## Week 2: Day 4 Answers

- 1) Write 0.175 as a percentage.

17.5%

- 2) Find the  $n^{\text{th}}$  term rule:

$7n - 7$

0, 7, 14, 21, 28, ...

- 3) Find the smaller amount when 95 is shared in the ratio 3:2

38

- 4) Complete the table of values for the linear relationship,

$$y = 4x + 2$$

$x$	-2	-1	0
$y$	-6	-2	2

- 5) Which number is not a multiple of 11?

396

454

231

## Week 2: Day 5

1) Write 1.25 as a percentage.

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2) Find the  $n^{\text{th}}$  term rule:

12, 7, 2, -3, -8, ...

---

3) Find the smaller amount when 108 is shared in the ratio 2:7

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4) Complete the table of values for the linear relationship,

$$y = 7 - 6x$$

$x$	1	2	3
$y$			

---

5) Which number is not a multiple of 7?

692

791

847

## Week 2: Day 5 Answers

- 1) Write 1.25 as a percentage.

125%

- 2) Find the  $n^{\text{th}}$  term rule:

$17 - 5n$

12, 7, 2, -3, -8, ...

- 3) Find the smaller amount when 108 is shared in the ratio 2:7

24

- 4) Complete the table of values for the linear relationship,

$$y = 7 - 6x$$

$x$	1	2	3
$y$	1	-5	-11

- 5) Which number is not a multiple of 7?

692

791

847

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