

## Week 7

### This week in a nutshell:

Questions 1-4 focus on skills that form part of a mathematical toolkit, and in fact are predominantly computational. Question 5 contains the idea of listing, which is quite often overlooked as a skill in itself. There are various methods of counting and listing, as well as checking completeness; discussions or follow-up tasks around this topic could generate some rewarding classroom activities.

**Question 1:** Decimal arithmetic

**Question 2:** Using ratio

**Question 3:** Metric unit conversion

**Question 4:** Tables of values (substitution)

**Question 5:** Listing outcomes

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: **Decimal arithmetic**

- Is decimal arithmetic a special case of integer arithmetic, or vice versa?

Question 2: **Using ratio**

- \*reflect on previous learning\*

Question 3: **Metric unit conversion**

- Is metric the best system of units? How else do we measure?

Question 4: **Tables of values (substitution)**

- How many uses do we have for tables in maths?

Question 5: **Listing outcomes**

- How do you check you have every outcome?
- What efficient methods of listing are there?

## Week 7: Day 1

1) Calculate:

$$2.09 + 4.483 =$$

2) Find the larger amount when £48 is shared in the ratio 3:5

3) How many millimetres (mm) are there in 14.8cm?

4) Complete the table of values for the linear relationship  
 $y = 3x - 2$ .

$x$	-1	0	1
$y$			

5) When two coins are tossed simultaneously, there are four possible outcomes. List the four possible outcomes.

## Week 7: Day 1 Answers

- 1) Calculate:

$$2.09 + 4.483 = 6.573$$

- 2) Find the larger amount when £48 is shared in the ratio 3:5

£30

- 3) How many millimetres (mm) are there in 14.8cm?

148mm

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

$$y = 3x - 2.$$

$x$	-1	0	1
$y$	-5	-2	1

- 5) When two coins are tossed simultaneously, there are four possible outcomes. List the four possible outcomes.

heads, heads

heads, tails

tails, heads

tails, tails

## Week 7: Day 2

1) Calculate:

$$0.782 - 0.096 =$$

2) Find the smaller amount when \$52 is shared in the ratio 1:3

3) How many centimetres (cm) are there in 21.8m?

4) Complete the table of values for the linear relationship  $y = 5 - 2x$ .

$x$	-3	0	3
$y$			

5) You are able to choose two salad ingredients for a sandwich from the list below. List the combinations of salad you could choose.



## Week 7: Day 2 Answers

- 1) Calculate:

$$0.782 - 0.096 = 0.686$$

- 2) Find the smaller amount when \$52 is shared in the ratio 1:3

\$13

- 3) How many centimetres (cm) are there in 21.8m?

2180cm

- 4) Complete the table of values for the linear relationship  $y = 5 - 2x$ .

$x$	-3	0	3
$y$	11	5	-1

- 5) You are able to choose two salad ingredients for a sandwich from the list below. List the combinations of salad you could choose.

Tomato & lettuce  
Tomato & cucumber  
Tomato & onion  
Lettuce & cucumber  
Lettuce & onion  
Cucumber & onion



## Week 7: Day 3

1) Calculate:

$$1.8 - 4.37 + 7.603 =$$

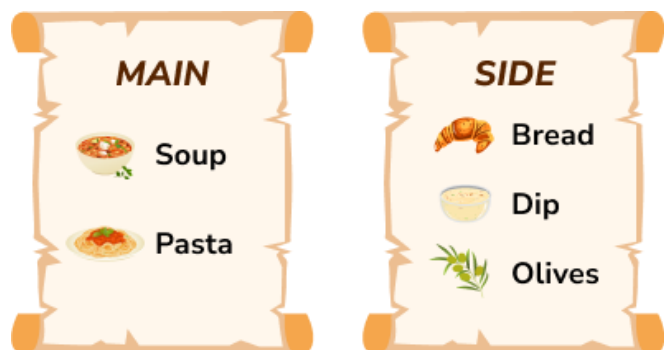
2) Find the largest amount when €78 is shared in the ratio 1:2:3

3) How many grammes (g) are there in 6.25kg?

4) Complete the table of values for the linear relationship  $y = \frac{1}{2}(x + 7)$ .

$x$	-5	0	5
$y$			

5) A meal deal involves choosing a main and a side. List the possible meal outcomes.



## Week 7: Day 3 Answers

1) Calculate:

$$1.8 - 4.37 + 7.603 = 5.033$$

2) Find the largest amount when €78 is shared in the ratio 1:2:3

€39

3) How many grammes (g) are there in 6.25kg?

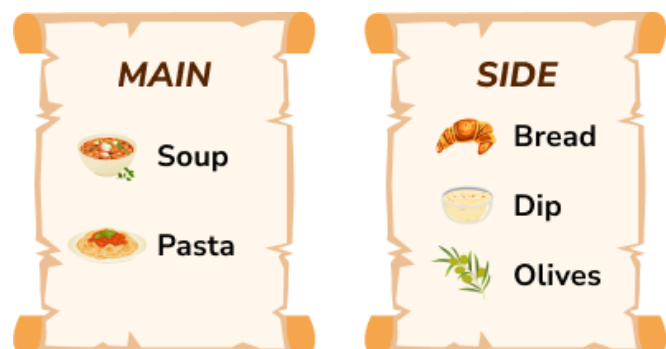
6250g

4) Complete the table of values for the linear relationship  $y = \frac{1}{2}(x + 7)$ .

$x$	-5	0	5
$y$	1	3.5	6

5) A meal deal involves choosing a main and a side. List the possible meal outcomes.

Soup & bread  
 Soup & dip  
 Soup & olives  
 Pasta & bread  
 Pasta & dip  
 Pasta & olives



## Week 7: Day 4

- 1) Calculate:

$$6.64 \div 0.8 =$$

- 2) Find the smaller amount when £8.40 is shared in the ratio 3:2

- 3) How many litres (l) are there in 660ml?

- 4) Complete the table of values for the linear relationship  $2x + y = 5$ .

$x$	-2	0	2
$y$			

- 5) List the ways of choosing two scoops of ice cream for a double cone, by selecting from the list given





## Week 7: Day 4 Answers

- 1) Calculate:

$$6.64 \div 0.8 = 8.3$$

- 2) Find the smaller amount when £8.40 is shared in the ratio 3:2

£3.36

- 3) How many litres (l) are there in 660ml?

0.66l

- 4) Complete the table of values for the linear relationship  $2x + y = 5$ .

$x$	-2	0	2
$y$	9	5	1

- 5) List the ways of choosing two scoops of ice cream for a double cone, by selecting from the list given.

Vanilla, vanilla  
 Vanilla, mint  
 Vanilla, chocolate  
 Mint, mint  
 Mint, chocolate  
 Chocolate, chocolate



## Week 7: Day 5

1) Calculate:

$$3.8 \times 0.12 =$$

2) Find the larger amount when 297 is shared in the ratio 2:7

3) How many millimetres (mm) are there in 0.95m?

4) Complete the table of values for the linear relationship  $2y = 3 - x$ .

$x$	-5	0	7
$y$			

5) A coin is tossed and a 6-sided dice is rolled. List all the possible outcomes, using H for heads and T for tails.

## Week 7: Day 5 Answers

- 1) Calculate:

$$3.8 \times 0.12 = 0.456$$

- 2) Find the larger amount when 297 is shared in the ratio 2:7

231

- 3) How many millimetres (mm) are there in 0.95m?

950mm

- 4) Complete the table of values for the linear relationship  $2y = 3 - x$ .

$x$	-5	0	7
$y$	4	1.5	-2

- 5) A coin is tossed and a 6-sided dice is rolled. List all the possible outcomes, using H for heads and T for tails.

(H, 1), (H, 2), (H, 3), (H, 4), (H, 5), (H, 6)

(T, 1), (T, 2), (T, 3), (T, 4), (T, 5), (T, 6)

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