

Week 4

This week in a nutshell:

Students may benefit from looking back at previous weeks as they attempt questions 1 and 5. Question 2 is primarily designed to aid students in their access to upcoming topics; this could be used to inform assessment for learning or simply as a revision tool. Discussing confidence of previously seen topics should now be deployed as this will help to develop metacognition.

Question 1: Using coordinates

Question 2: SI Units

Question 3: Simple substitution

Question 4: Column addition/subtraction

Question 5: Plotting straight line graphs

This week's ideas for class discussion include:

Question 1: Using coordinates

- Why might we need only the horizontal or vertical distance between points?
- Are there real life situations where these matter more than the overall distance?
- How do you think the horizontal and vertical distances relate to the overall distance?

Question 2: SI Units

- Why is a recognised set of units useful?
- How else could we measure things?

Question 3: Simple substitution

- How do we make sure our substitution is accurate?

Question 4: Column addition/subtraction

- How is your confidence in addition and subtraction changing with practice?

Question 5: Plotting straight line graphs

- How many skills are you having to combine in order to plot a straight line?

Week 4: Day 1

1) What is the horizontal distance between these points?

(3, 4) and (8, 2)

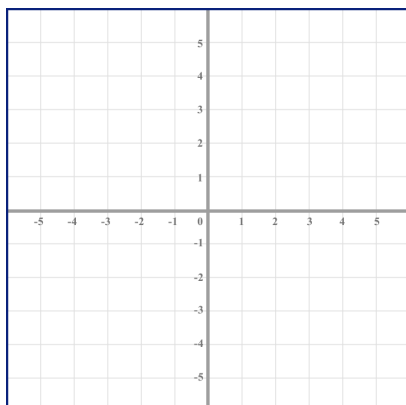
2) What type of measure are metres (m) the unit for?

3) If $x = 2$, find the value of y when
 $y = x + 5$

4) Perform the calculation below.

	2	5	7
+		7	4

5) Plot the graph of $y = x + 1$



Week 4: Day 1 Answers

1) What is the horizontal distance between these points?

(3, 4) and (8, 2) **5**

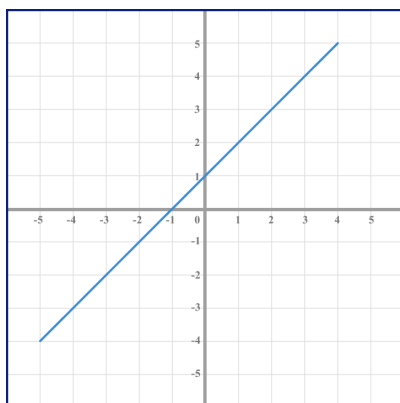
2) What type of measure are metres (m) the unit for? **length**

3) If $x = 2$, find the value of y when **$y = 7$**
 $y = x + 5$

4) Perform the calculation below.

	2	5	7
+		7	4
	3	3	1

5) Plot the graph of $y = x + 1$



Week 4: Day 2

1) What is the horizontal distance between these points?

$(0, 4)$ and $(-2, 2)$

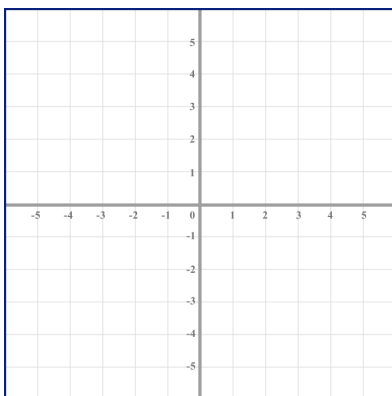
2) What type of measure are grams (g) the unit for?

3) If $x = 1$, find the value of y when
 $y = x - 5$

4) Perform the calculation below.

	4	0	8
-	1	8	3

5) Plot the graph of $y = 2x - 1$



Week 4: Day 2 Answers

- 1) What is the horizontal distance between these points?

(0, 4) and (-2, 2) **2**

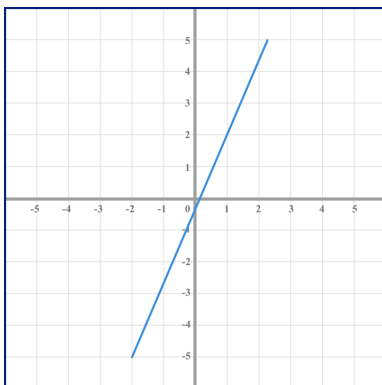
- 2) What type of measure are grams (g) the unit for? **mass**

- 3) If $x = 1$, find the value of y when **$y = -4$**
 $y = x - 5$

- 4) Perform the calculation below.

	4	0	8
-	1	8	3
	2	2	5

- 5) Plot the graph of $y = 2x - 1$



Week 4: Day 3

1) What is the vertical distance between these points?

$(0, 4)$ and $(0, -1)$

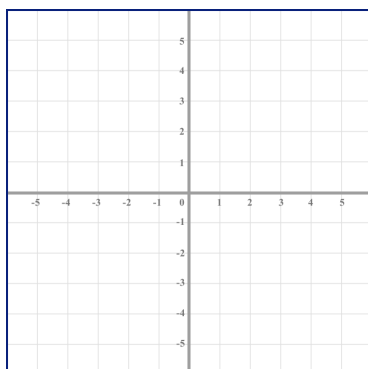
2) What type of measure are litres (l) the unit for?

3) If $x = 0$, find the value of y when
 $y = 2x$

4) Perform the calculation below.

	2	5	5
+		6	6

5) Plot the graph of $y = \frac{1}{2}x$



Week 4: Day 3 Answers

1) What is the vertical distance between these points?

(0, 4) and (0, -1) **5**

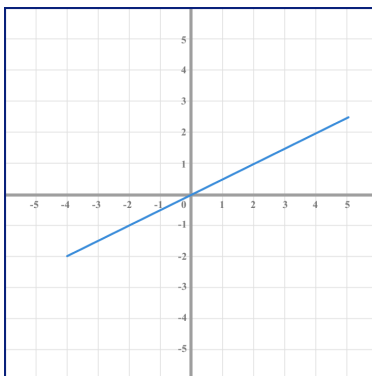
2) What type of measure are litres (l) the unit for? **capacity**

3) If $x = 0$, find the value of y when **$y = 0$**
 $y = 2x$

4) Perform the calculation below.

	2	5	5
+		6	6
	3	2	1

5) Plot the graph of $y = \frac{1}{2}x$



Week 4: Day 4

1) What is the horizontal distance between these points?

$(0, -4)$ and $(0, -2)$

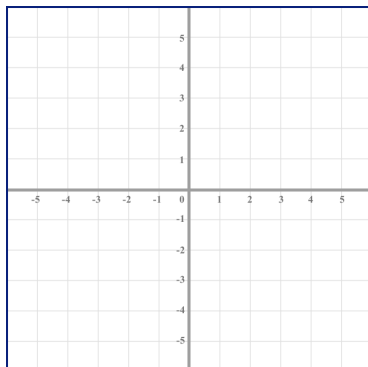
2) What type of measure are degrees Celsius ($^{\circ}\text{C}$) the unit for?

3) If $x = -1$, find the value of y when
 $y = 3x - 5$

4) Perform the calculation below.

	6	1	0
-	2	5	8

5) Plot the graph of $x + y = 2$



Week 4: Day 4 Answers

1) What is the horizontal distance between these points?

(0, -4) and (0, -2) **0**

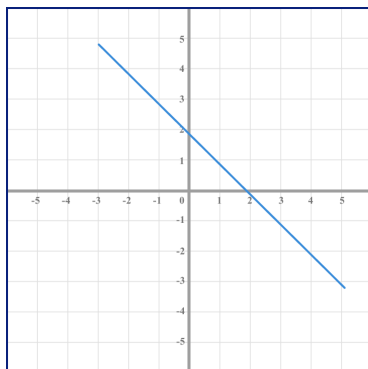
2) What type of measure are degrees Celsius ($^{\circ}\text{C}$) the unit for? **temperature**

3) If $x = -1$, find the value of y when **$y = -8$**
 $y = 3x - 5$

4) Perform the calculation below.

	6	1	0
-	2	5	8
	3	5	2

5) Plot the graph of $x + y = 2$



Week 4: Day 5

1) What is the vertical distance between these points?

$(-1, -4)$ and $(8, -7)$

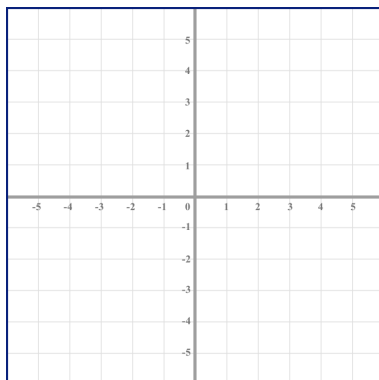
2) What type of measure are seconds (s) the unit for?

3) If $x = -3$, find the value of y when
 $y = 7 - 2x$

4) Perform the calculation below.

	4	2	8
	2	3	1
+		4	7

5) Plot the graph of $y = 2 - x$



Week 4: Day 5 Answers

- 1) What is the vertical distance between these points?

$(-1, -4)$ and $(8, -7)$ **3**

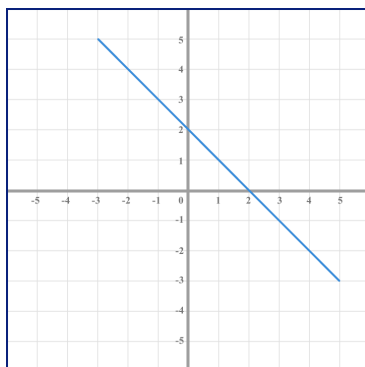
- 2) What type of measure are seconds (s) the unit for? **time**

- 3) If $x = -3$, find the value of y when **$y = 13$**
 $y = 7 - 2x$

- 4) Perform the calculation below.

	4	2	8
	2	3	1
+		4	7
	7	0	6

- 5) Plot the graph of $y = 2 - x$



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