

HOME LEARNING

Year 8 Maths - Home Learning 7

Focus for this week: Use measurements; Read and plot co-ordinates

Essential learning:	<ul style="list-style-type: none">• Compare, add and subtract mass in grammes and kg• Read and plot co-ordinates in one quadrant
Practising:	<ul style="list-style-type: none">• Read and plot co-ordinates in four quadrants
Learning about:	<ul style="list-style-type: none">• Draw shapes on a 4 quadrant grid• Translate shapes on a 4 quadrant grid
Extension:	<ul style="list-style-type: none">• Plot points to make a straight line

Contents:

Worksheet 1: Compare, add and subtract mass in grammes and kg

Worksheet 2: Plot co-ordinates

Worksheet 3: Draw shapes on a 4 quadrant grid

Worksheet 4: Translate shapes on a 4 quadrant grid

Worksheet 5: Plot points to make a straight line

Tasks:

- Look at the learning objectives, reflect on what you are already confident with, what you would like to practise and what you would like to learn this week
- Choose 2-3 worksheets to complete this week and email them to Mr. Croft
- Login to MyMaths and complete MyMaths tasks
- Spend 10 minutes a day on Times Table Rock Stars; Numbots OR Sumdog
- Please email a photo of any worksheets or poster you complete to the email address below.
This will earn you a golden token.

If you have queries about this work, please contact me at acroft@bower-grove.kent.sch.uk

Worksheet 1: Compare, add and subtract mass in grammes and kg

Remember that there are 1000 grams in a kilogram.

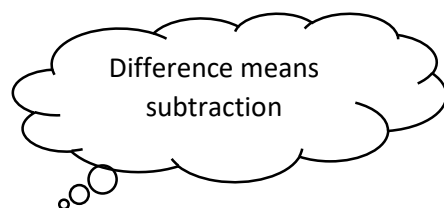
It helps if you convert all measures to kg or g before calculating the total.

Task: Look in your food cupboard and choose a minimum of 2 items.

Find the weight of each item by looking on the packaging and add them together.

Use a written method to find the answer.

Example:- Paxo 170g + soup 400g = 570g



Extension- find the difference between 2 items.

Email completed worksheets to me at acroft@bower-grove.kent.sch.uk . Each good attempt earns a golden token.

Emoji Coordinates

Draw the lines made by these coordinates. Use a different colour for each line.

(6,0) (8,1) (9,2) (10,4) (10,6) (9,8) (8,9) (6,10) (4,10)

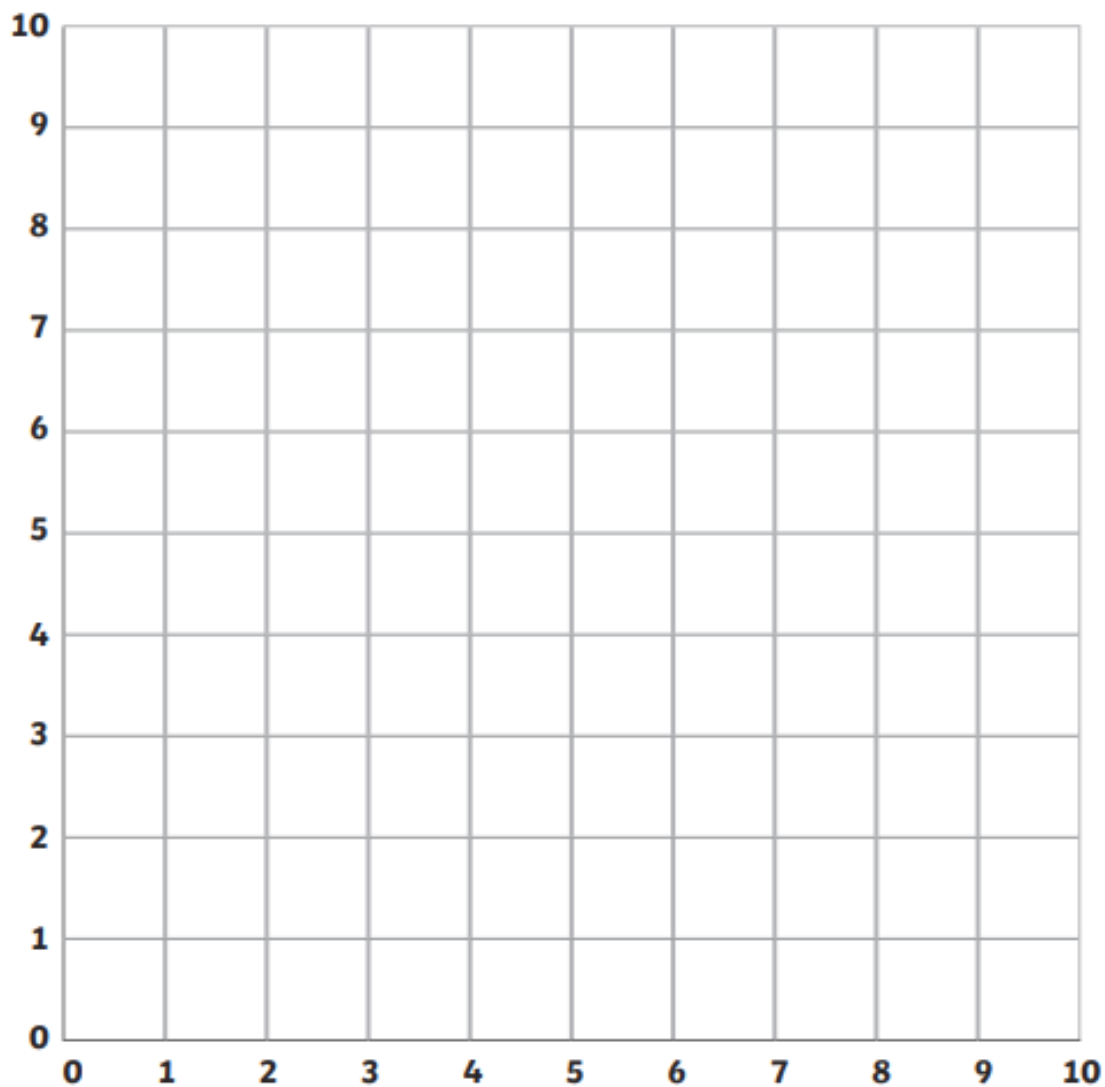
(6,0) (4,0) (2,1) (1,2) (0,4) (0,6) (1,8) (2,9) (4,10)

(3,5) (1,7) (2,8) (3,7) (4,8) (5,7) (3,5)

(7,5) (5,7) (6,8) (7,7) (8,8) (9,7) (7,5)

(3,4) (4,3) (6,3) (7,4) (6,2) (4,2) (3,4)

What shape do they make together?



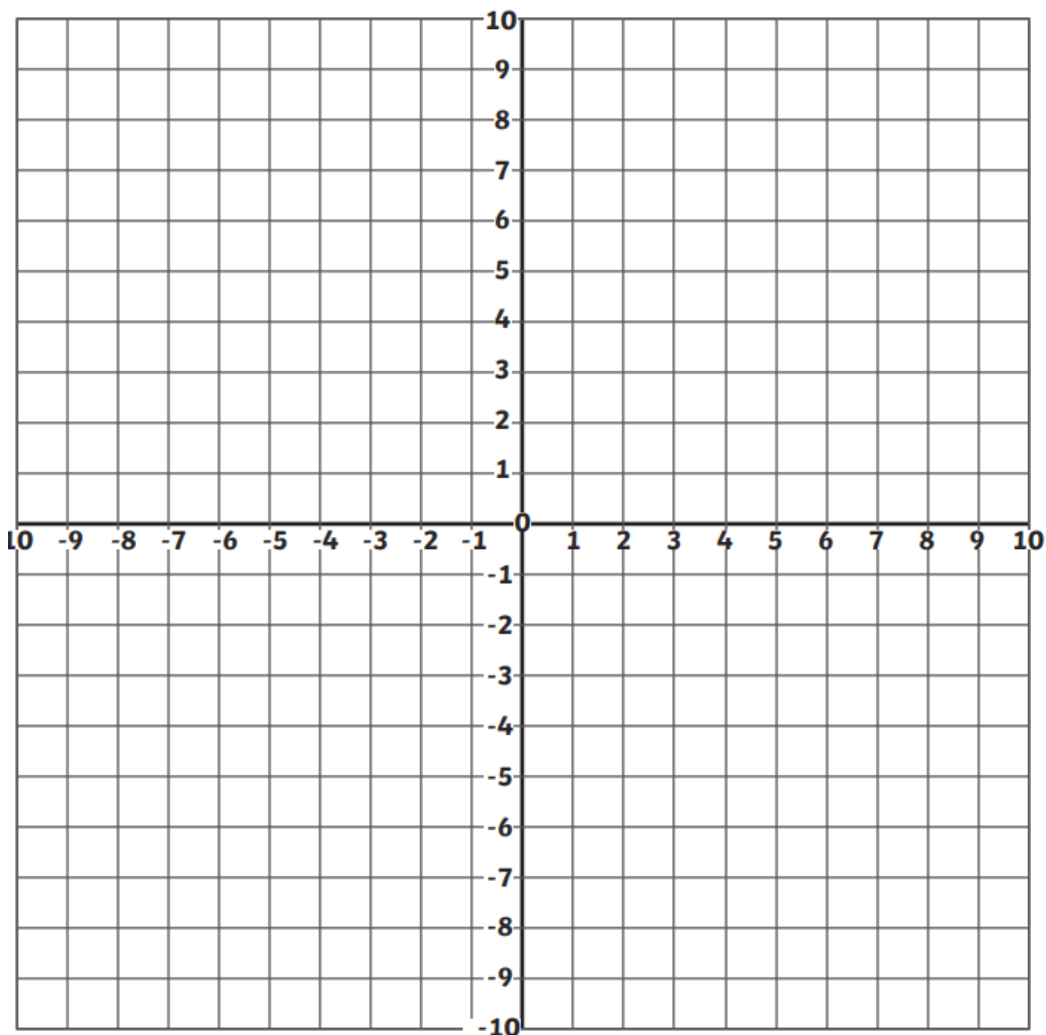
Worksheet 3: Draw shapes on a 4 quadrant grid

Challenge

Using the four-quadrant grid on the next page, carefully plot these points. Then, use a ruler to draw a line between each pair of coordinates. If you have done this correctly, it should reveal a special shape!

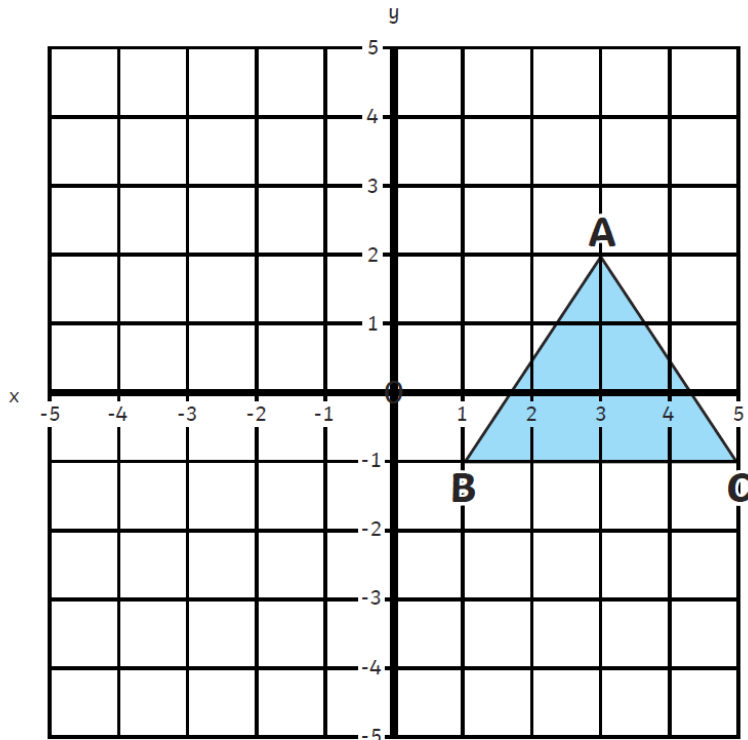
Coordinates

- | | | | |
|--------------------|-------------------|---------------------|---------------------|
| 1. (-7,-6) (-7,-7) | 12. (5,3) (3,5) | 23. (-6,6) (-1,6) | 34. (-9,3) (-3,-4) |
| 2. (-7,-7) (4,-7) | 13. (3,5) (1,5) | 24. (-1,6) (-1,5) | 35. (-3,-4) (-4,-6) |
| 3. (4,-7) (5,-6) | 14. (1,5) (1,6) | 25. (-1,5) (1,5) | 36. (-4,-6) (-7,-6) |
| 4. (5,-6) (5,-5) | 15. (1,6) (6,6) | 26. (1,5) (-3,5) | 37. (-9,3) (-2,-4) |
| 5. (5,-5) (3,-6) | 16. (6,6) (6,7) | 27. (-3,5) (-4,3) | 38. (-2,-4) (-3,-6) |
| 6. (3,-6) (2,-4) | 17. (6,7) (1,7) | 28. (-4,3) (-8,5) | 39. (-3,-6) (2,-6) |
| 7. (2,-4) (6,-2) | 18. (1,7) (1,8) | 29. (-8,5) (-7,6) | 40. (2,-6) (1,-4) |
| 8. (6,-2) (2,1) | 19. (1,8) (-1,8) | 30. (-7,6) (-8,7) | 41. (1,-4) (-2,-4) |
| 9. (2,1) (5,3) | 20. (-1,8) (-1,7) | 31. (-8,7) (-10,3) | |
| 10. (5,3) (6,2) | 21. (-1,7) (-6,7) | 32. (-10,3) (-10,2) | |
| 11. (6,2) (6,-2) | 22. (-6,7) (-6,6) | 33. (-10,2) (-9,3) | |



Worksheet 4: Translate shapes on a 4 quadrant grid

Task 1



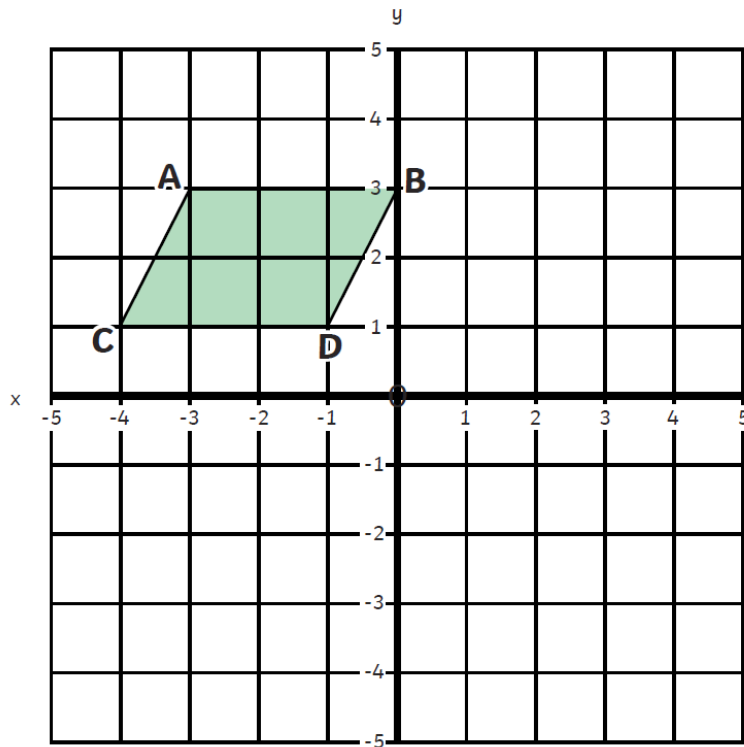
- a) If the triangle is translated 5 squares to the left, what will the new coordinates of vertex A be?

- b) If the triangle is translated 3 squares up, what will the new coordinates of vertex B be?

- c) If the triangle is translated 5 squares to the left and 3 squares up, what will the new coordinates of vertex C be?

Task 2

James translates this parallelogram 3 squares to the right and 5 squares down. Draw the translated parallelogram on the grid and give the new coordinate positions of the vertices.



Worksheet 5: Plotting points to draw straight lines

1. (a) Plot the points with coordinates
(0, 4), (1, 5), (3, 7) and (5, 9).
(b) Draw a straight line through the points.
(c) Write down the coordinates of 3 other points that lie on this line.

2. (a) Plot the points with coordinates
(0, 6), (2, 4), (3, 3) and (5, 1)
and draw a straight line through them.
(b) On the same graph as used for question 2 (a), plot the points with coordinates
(1, 8), (2, 7), (5, 4) and (7, 2)
and draw a straight line through them.
(c) Copy and complete the sentence:
"These two lines are p.....".

3. (a) Plot the points with coordinates
(2, 6), (3, 5), (4, 4) and (7, 1)
and draw a straight line through them.
(b) On the same set of axes, plot the points with coordinates
(0, 1), (1, 2), (3, 4) and (5, 6)
and draw a straight line through them.
(c) Copy and complete this sentence:
"These two lines are p.....".

4. (a) Plot the points with coordinates
(1, 1), (2, 2), (4, 4) and (5, 5)
and draw a straight line through them.
(b) Write down the coordinates of two other points on the line.
(c) Describe the relationship between the x - and y -coordinates.

