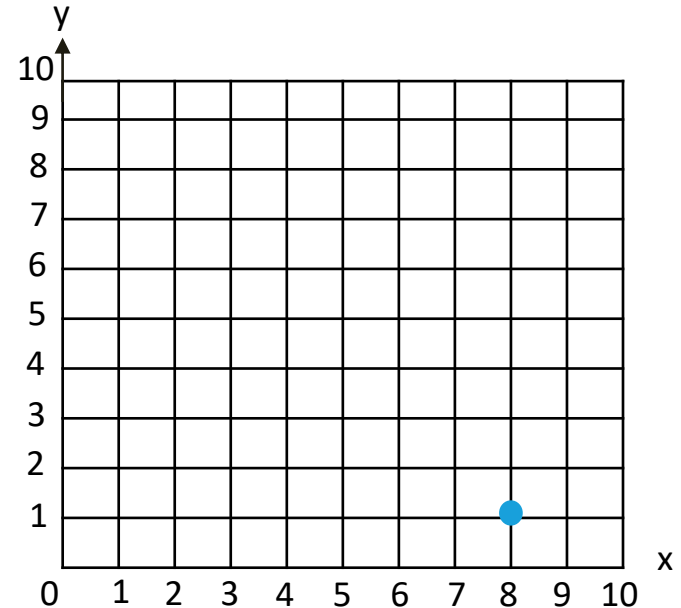




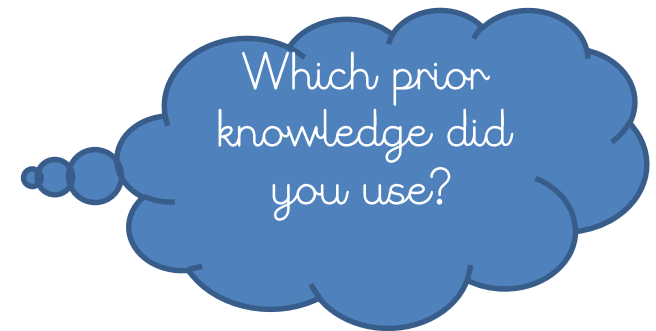
Using a Coordinates Grid

The coordinate of the blue dot is $(8, 1)$,

You count the number of squares along (which is 8) and the number of squares up (which is 1).



If $(8, 1)$ is one of the vertices in a square, and another one is $(4, 1)$, what would the coordinates of the other 2 vertices be?



WALT: Understand and
use coordinates

Introduction I

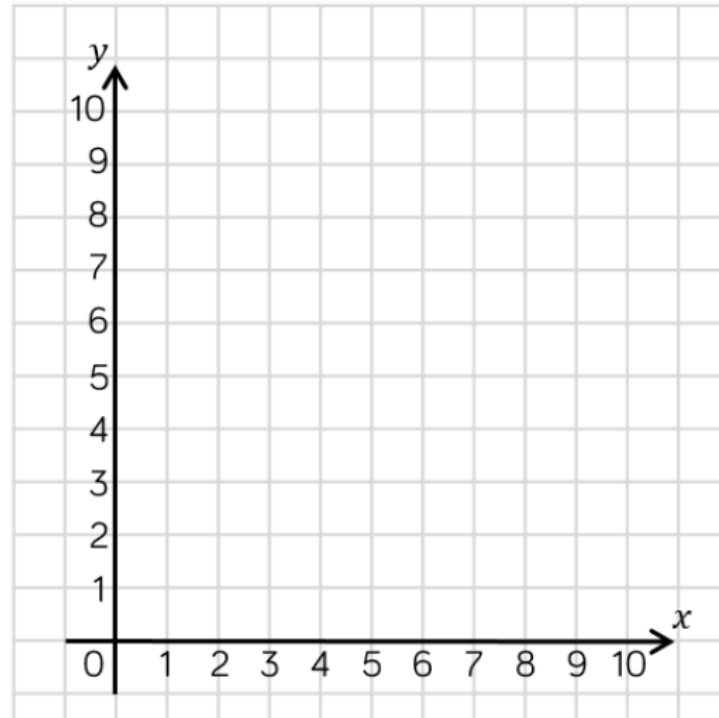
How would you plot the coordinates on the grid?

$(3, 5)$

$(4, 4)$

$(0, 2)$

$(4, 0)$



Introduction 2

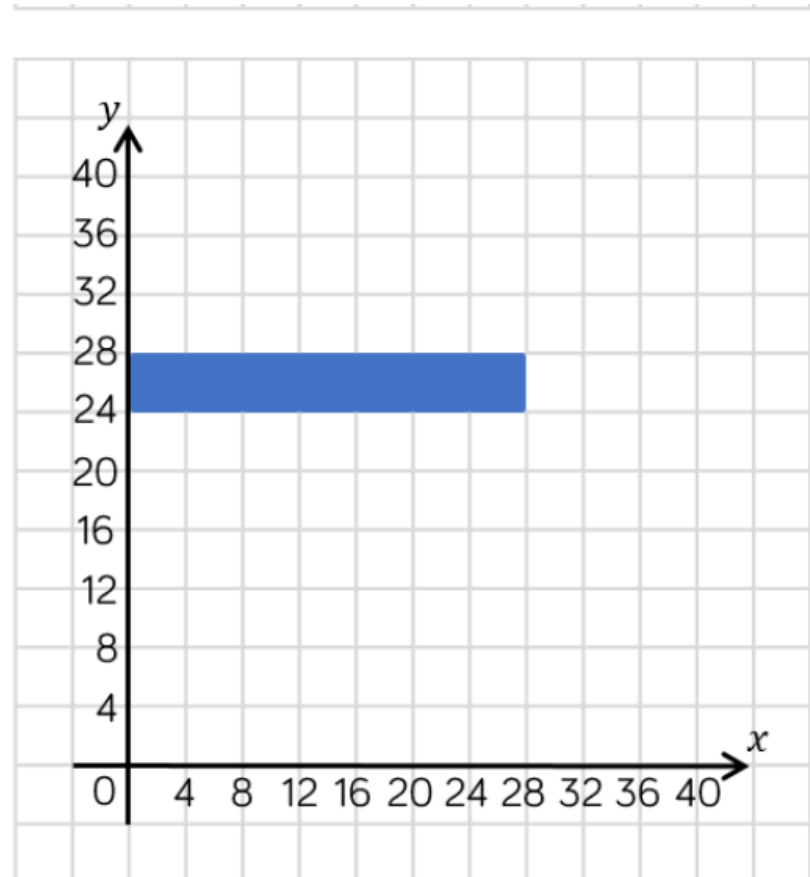
What are the coordinates of the vertices of the rectangle?

(,)

(,)

(,)

(,)



Key Vocabulary

- Axis
- X-axis
- Y-axis
- Coordinate
- Position
- Grid
- Plot

The x-axis is the horizontal line in the axis, and the y-axis is the vertical line in the axis



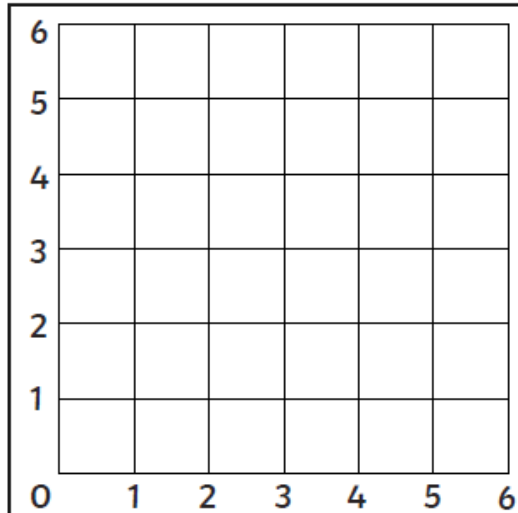
Add to the key vocabulary list as you use and apply your knowledge linked to coordinates.

What would you include in a WAGOLL
for understanding and using
coordinates?

Fluency - Do it!

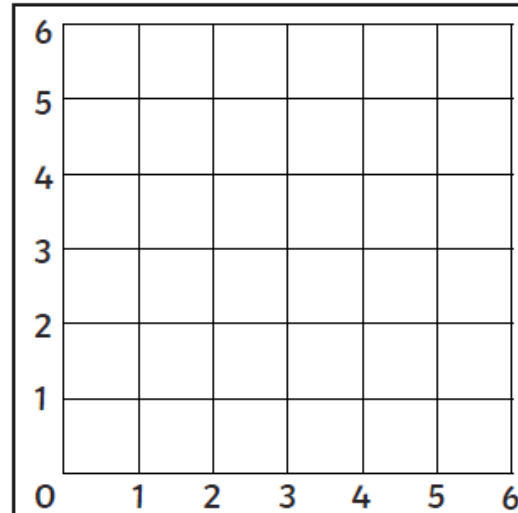
For each of the 6 fluency tasks, draw out the grids and plot the coordinates.

Use your prior knowledge from our shapes session where we discussed that a polygon is a 2D shape with straight sides that is fully closed to add value to your learning.



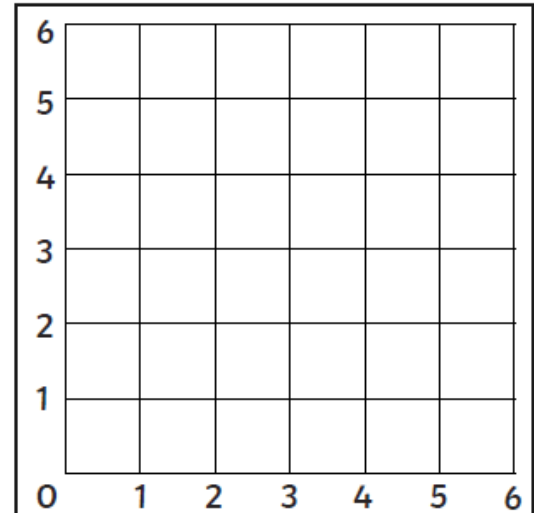
1. (1,1) (5,1) (5,5) (1,5)

Polygon =



2. (1,3) (5,3) (5,5) (1,5)

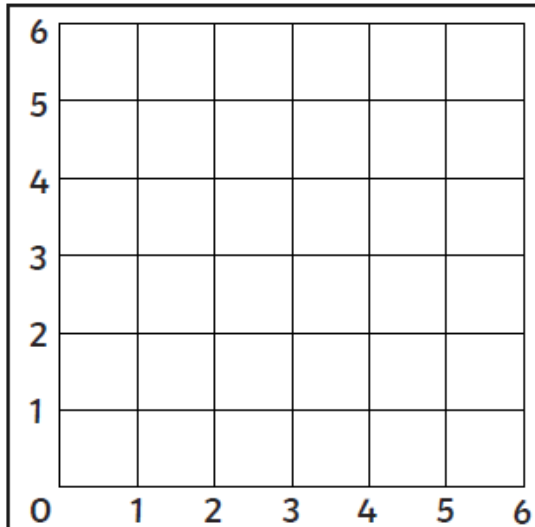
Polygon =



3. (0,3) (3,6) (6,3) (3,0)

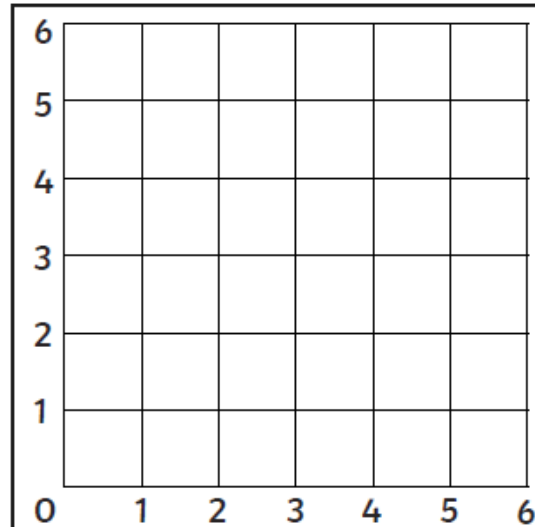
Polygon =

Fluency - Do it! (continued)



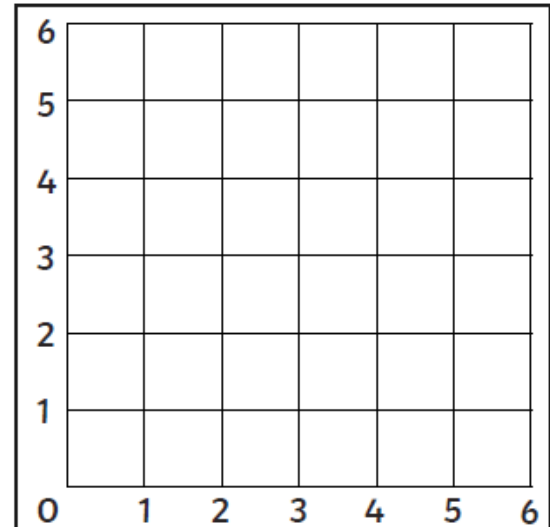
4. (2,6) (4,6) (4,0) (2,0)

Polygon =



5. (1,1) (6,5) (6,1)

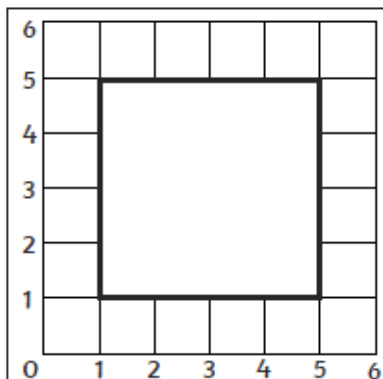
Polygon =



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

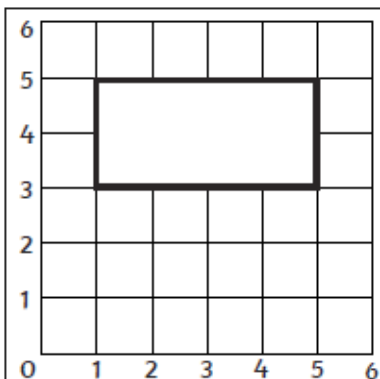
Polygon =

Fluency - Do it! ANSWERS



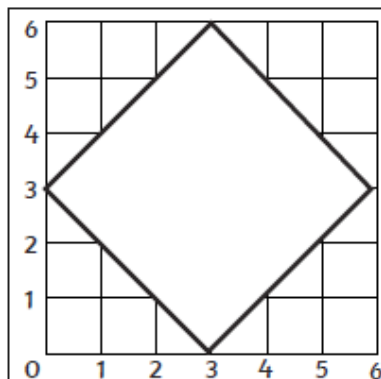
1. (1,1)(5,1)(5,5)(1,5)

Polygon = *Square*



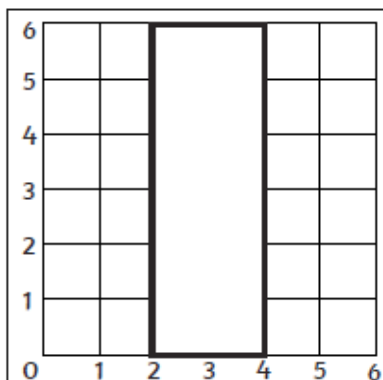
2. (1,3)(5,3)(5,5)(1,5)

Polygon = *Rectangle*



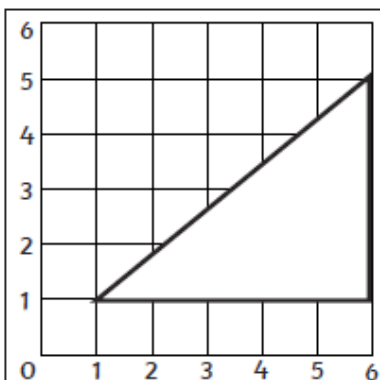
3. (0,3)(3,6)(6,3)(3,0)

Polygon = *Square*



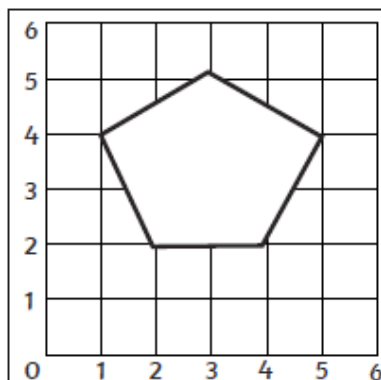
4. (2,6)(4,6)(4,0)(2,0)

Polygon = *Rectangle*



5. (1,1)(6,5)(6,1)

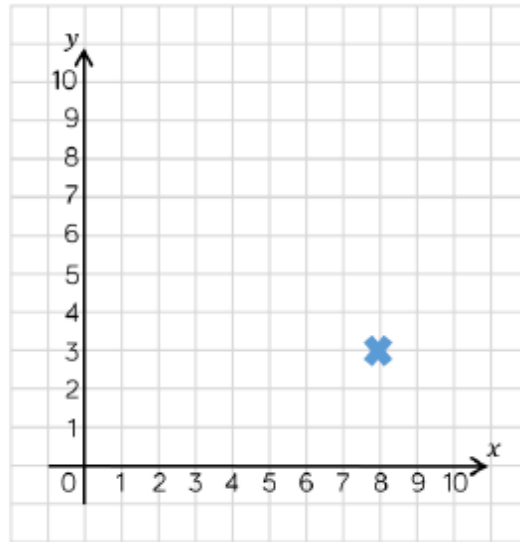
Right-Angled
Polygon = *Triangle*



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

Irregular
Polygon = *Pentagon*

Reasoning - Secure it!



The point is at (8, 3)



Mo

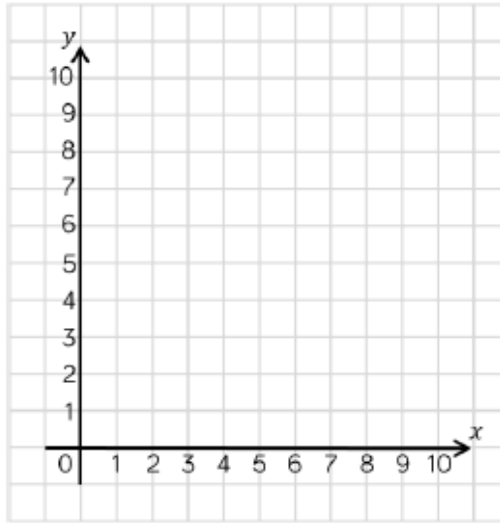


Alex

The point is at (3, 8)

Who do you agree with? Can you spot the mistake the other child has made?

Problem solving - Deepen it!



Annie is finding co-ordinates where the x -coordinate and the y -coordinate add up to 8.

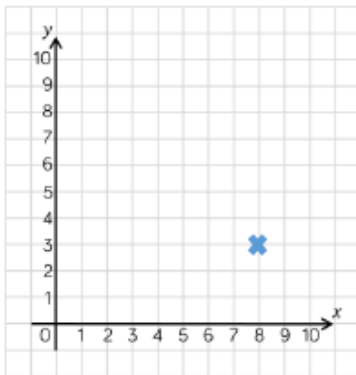
For example: $(3, 5)$ $3 + 5 = 8$

Find all of Annie's coordinates and plot them on the grid. What do you notice?

Now do the same for a different total.

Reasoning and Problem solving

ANSWERS



The point is at (8, 3)



Mo

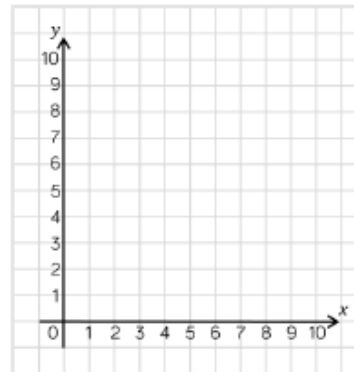


Alex

The point is at (3, 8)

Who do you agree with? Can you spot the mistake the other child has made?

Mo is correct. Alex has made a mistake by thinking the first number is the y-coordinate.



Annie is finding co-ordinates where the x -coordinate and the y -coordinate add up to 8.

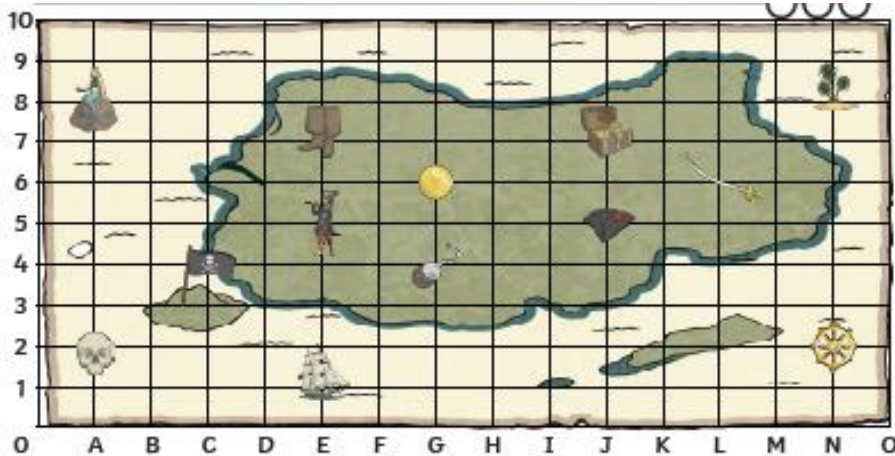
For example: (3, 5) $3 + 5 = 8$

Find all of Annie's coordinates and plot them on the grid. What do you notice?

Now do the same for a different total.

Annie's coordinates form a diagonal line (8, 0) to (0, 8)

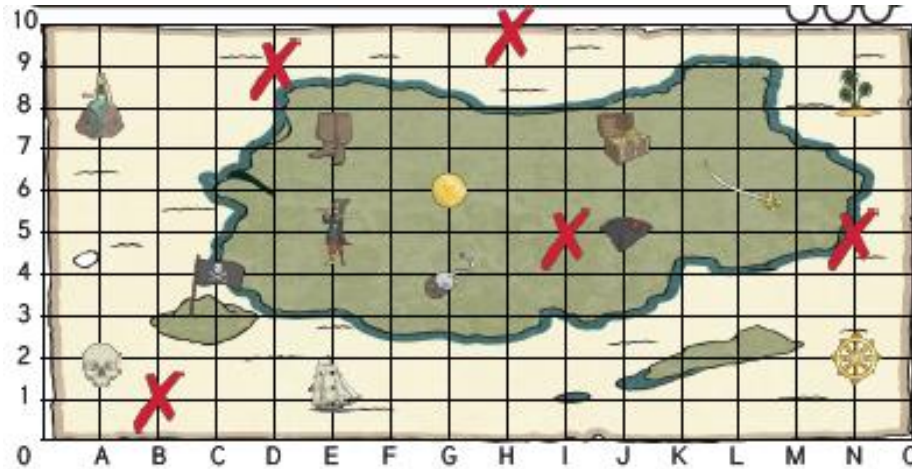
Additional Activity



Look at the suggested treasure map and questions (you can answer them as well if you would like to) and then have a go at creating your own treasure map and questions (remember to create an answer sheet too).

What is at these coordinates on the pirate map? (E,5) = _____ (G,6) = _____ (L,6) = _____ (J,7) = _____ (A,8) = _____	Write the coordinate of these places on the pirate map:  - (,)  - (,)  - (,)  - (,)  - (,)	Plot these coordinates on the grid using a cross. (B,1) (N,5) (I,5) (D,9) (H,10)
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Additional Activity ANSWERS



What is at these coordinates on the pirate map?

(E,5) = pirate

(G,6) = gold coin

(L,6) = sword

(J,7) = treasure

(A,8) = mermaid

Write the coordinate of these places on the pirate map:

 = (E , 7)

 = (G , 4)

 = (N , 8)

 = (C , 4)

 = (N , 2)

Plot these coordinates on the grid using a cross.

(B,1)

(N,5)

(I,5)

(D,9)

(H,10)

Plenary

Use an emoji to show how well you have understood the WALT.



Think about when you might use coordinates in real life situations and make a list of these.



Can you also think of a career in which you would need to understand and use coordinates?