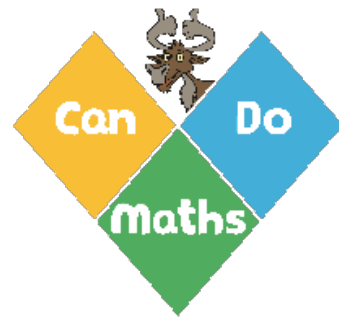




Colin and Coco's Deliberate Practice

Year 4 Unit 16

Answers

Geometry: Position and Direction





Contents

This pack of deliberate practice is designed to be used flexibly to secure the manageable steps of this unit.

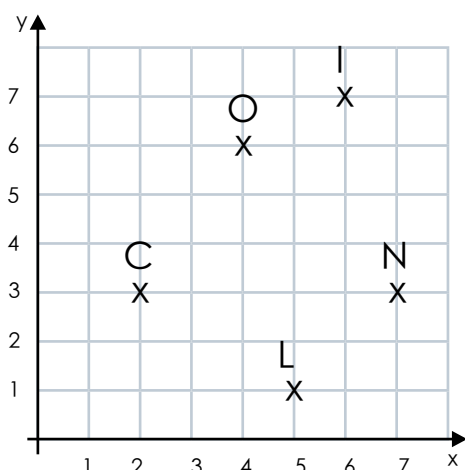
The table below indicates which activities are linked to which manageable steps.

	Do It	Challenge It	Play It
Use coordinates to describe the position of a point in the first quadrant	1		
Plot points in the first quadrant using co-ordinates			1
Use coordinates to plot a set of points to construct a polygon		1	
Describe movements between positions as translations of a given unit to the left/right	2	2	
Describe movements between positions as translations of a given unit to the up/down		2	
Describe movements between positions as translations of a given unit to the left/right and up/down			2



Do It 1

Find the coordinates of the points.



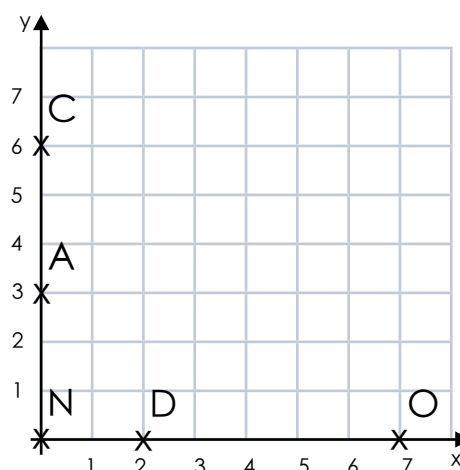
C (2 , 3)

O (4 , 6)

L (5 , 1)

I (6 , 7)

N (7 , 3)



C (0 , 6)

A (0 , 3)

N (0 , 0)

D (2 , 0)

O (7 , 0)

Challenge It 1

Find four pairs of coordinates to construct a:

Rectangle

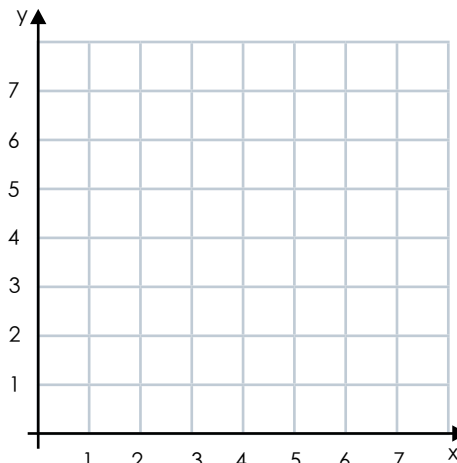
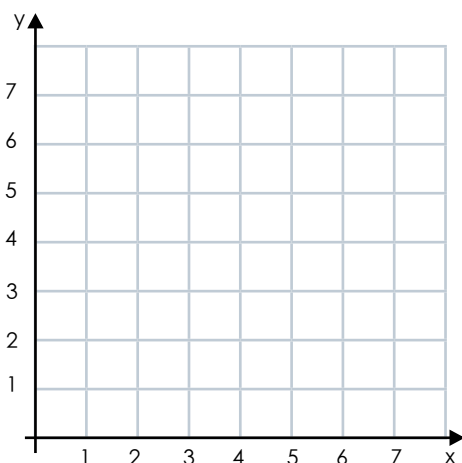
Parallelogram

Rhombus

Kite

Trapezium

Plot the points on the axes to see if you are correct.



Find other sets of coordinates that will construct different versions of the polygons.



Plotting Coordinates Game

Play It 1

You need:

Two 0 - 9 dice

0 - 10 Coordinate Grid (see below)

To play:

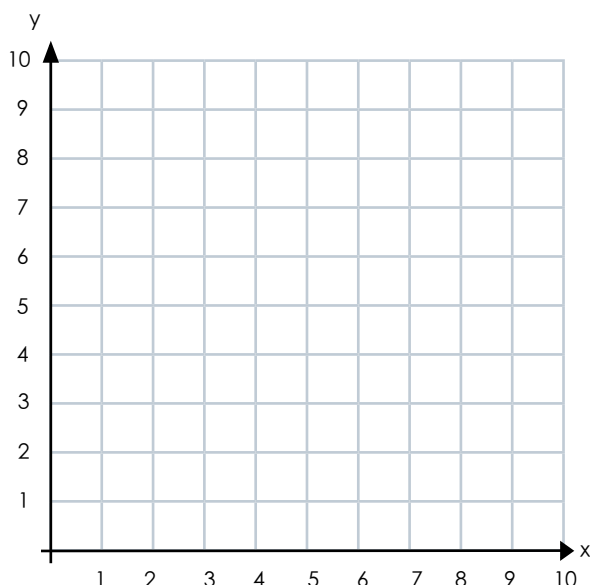
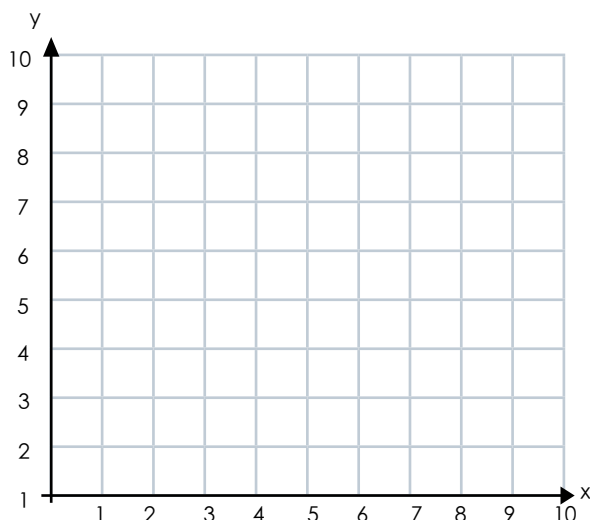
Players take it in turns to roll the two dice.

Each player uses their two numbers to create a pair of coordinates.

Each player plots the coordinates on their grid.

To win:

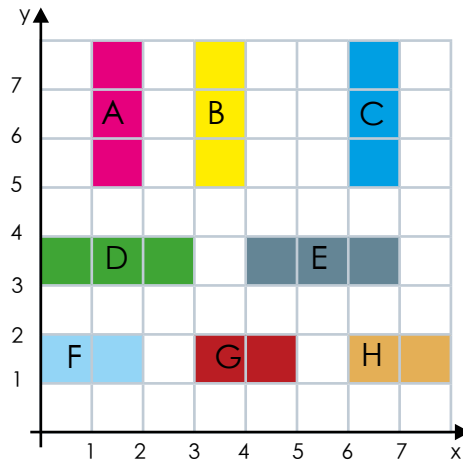
The winner is the first player to plot 4 points in a line horizontally, vertically or diagonally.





Do It 2

Describe the translation:



A to B

2 squares right

B to C

3 squares right

C to A

5 squares left

D to E

4 squares right

F to H

6 squares right

G to F

3 squares left

G to H

3 squares right

E to D

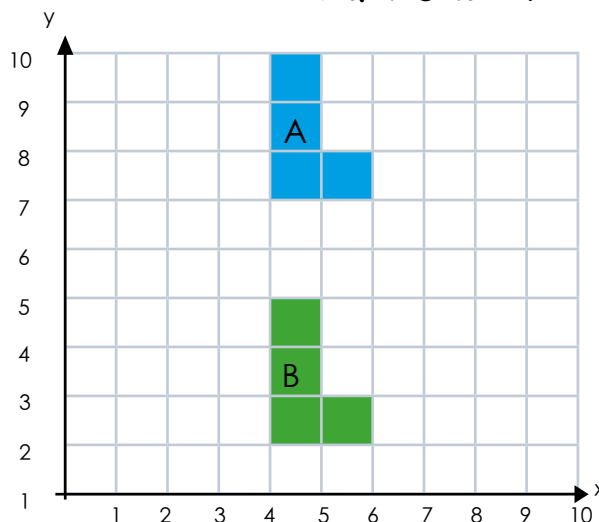
4 squares left

A to C

5 squares right

Challenge It 2

Shape A is moved to Shape B using more than one translation.



Find several different ways to translate Shape A to Shape B.