4F–3 Example assessment questions

1. It is a $2\frac{3}{4}$km cycle ride to my friend's house, and a further $\frac{3}{4}$km ride to the park. How far do I have to cycle altogether?

2. I have 5m of rope. I cut off $\frac{4}{10}$m. How much rope is left?

3. Fill in the missing numbers.

$2\frac{1}{7}$	$2\frac{4}{7}$			$3\frac{6}{7}$	

4. The table below shows the number of hours Josie read each day during a school week. For how long did Josie read altogether?

Mon	Tues	Wed	Thurs	Fri
$1\frac{3}{4}$ hours	1 hour	$1\frac{1}{4}$ hours	$1\frac{1}{4}$ hours	$2\frac{3}{4}$ hours

5. A tailor has $3\frac{7}{10}$m of ribbon. She uses $1\frac{9}{10}$m to complete a dress. How much ribbon is left?

4G–1 Draw polygons specified by coordinates or by translation

Draw polygons, specified by coordinates in the first quadrant, and translate within the first quadrant.

4G–1 Teaching guidance

Pupils should already be adept at placing markings at specific points, and joining these accurately with a ruler to draw a polygon (3G–1).

Pupils can begin by describing translations of polygons drawn on squared paper, by counting how many units to the left/right and up/down the polygon has been translated.

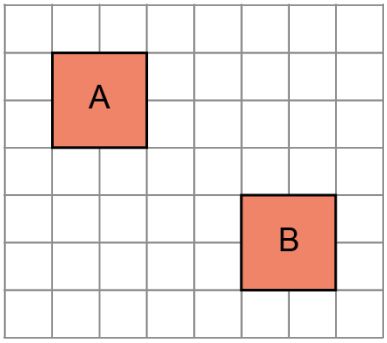


Figure 141: translation of a polygon on a square grid

Language focus

“The polygon has been translated 4 squares to the right and 3 squares down.”

Pupils should then learn to translate polygons on squared paper according to instructions that describe how many units to move the polygon to the left/right and up/down. Pupils can translate each point of the polygon individually, for example, translating each point right 4 and down 3 to mark the new points, and then joining them. Alternatively, pupils can translate and mark one point, then mark the other points of the polygon relative to the translated point.

In year 4, pupils must start to use coordinate geometry, beginning with the first quadrant. Initially, pupils can work with axes with no number labels, marking specified points as a translation from the origin, described as above.

For example, “Start at the origin and mark a point along 5, and up 4.”

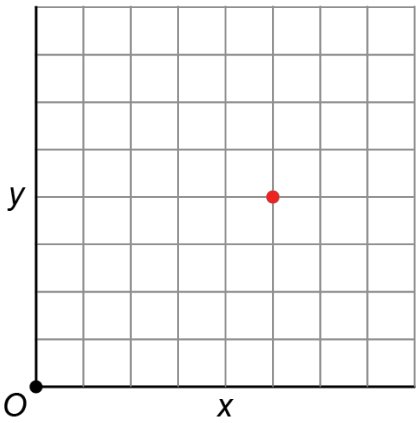


Figure 142: marking a point relative to the origin (*O*) on a grid with no number labels

Finally, pupils should learn to use coordinate notation with number labels on the axes. They must be able to mark the position of points specified by coordinates, and write coordinates for already marked points.

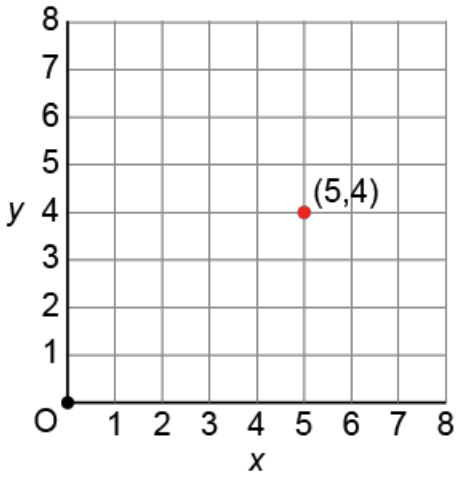


Figure 143: marking a point on a grid with number labels

When pupils first start to mark points, they should still start at the origin, moving along and then up as specified by the coordinates. If they do not do this, they are likely to place a point such as (5, 4) by just looking for a 5 and a 4, and possibly end up placing the point at (4, 5).

Language focus

"First count along the *x*-axis, then count along the *y*-axis."

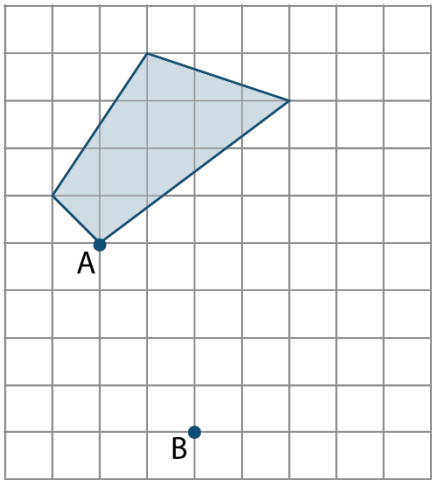
Pupils should then be able to draw polygons by marking and joining specified coordinates.

Making connections

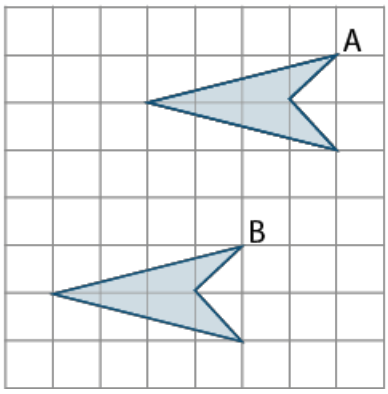
In **4NPV–3** , **4NPV–4** and **4F–1**, and in previous year groups, pupils learnt to place or identify specified points (numbers) on a number line or scale. In this criterion children learn to place or identify specified points with reference to 2 number lines.

4G–1 Example assessment questions

1. Translate the quadrilateral so that point A moves to point B.

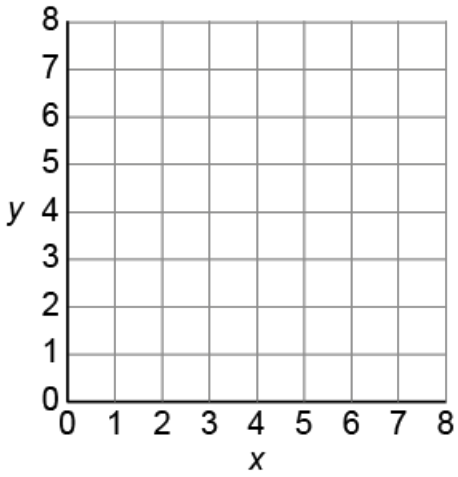


2. A kite has been translated from position A to position B. Describe the translation.

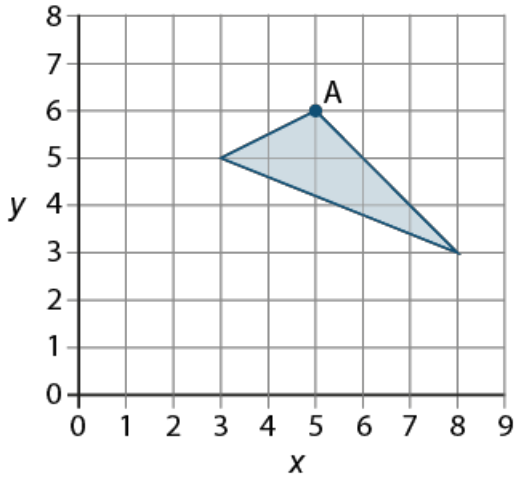


3. Mark the points, and join them to make a square.

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

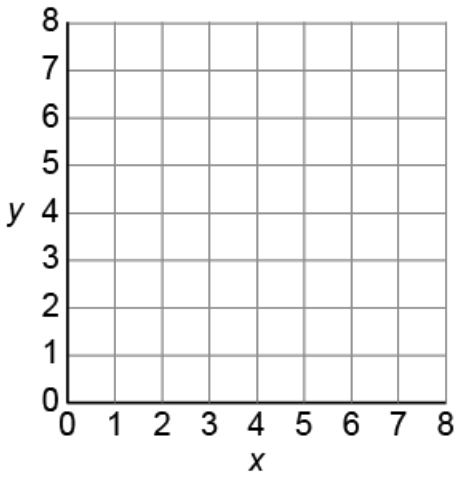


4. This triangle is translated so that point A moves to (4, 3). Draw the shape in its new position.



5. Mark the following points, and join them to make a polygon.

(5, 0) (3, 1) (5, 2) (7, 1)



a. What is the name of the polygon that you have drawn?

b. Translate the polygon you have just drawn left 2 and up 3. What are the coordinates of the vertices of this new polygon?