UNIT 7 *Transformations* Overhead Slides

Overhead Slides

7.1 Shapes
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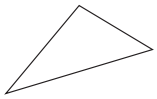
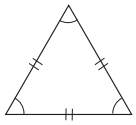
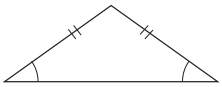
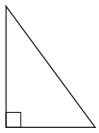
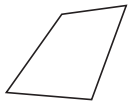
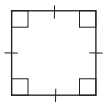
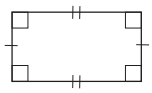
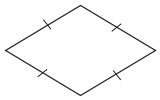
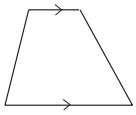
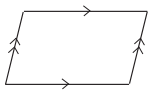
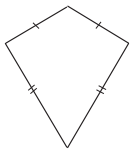
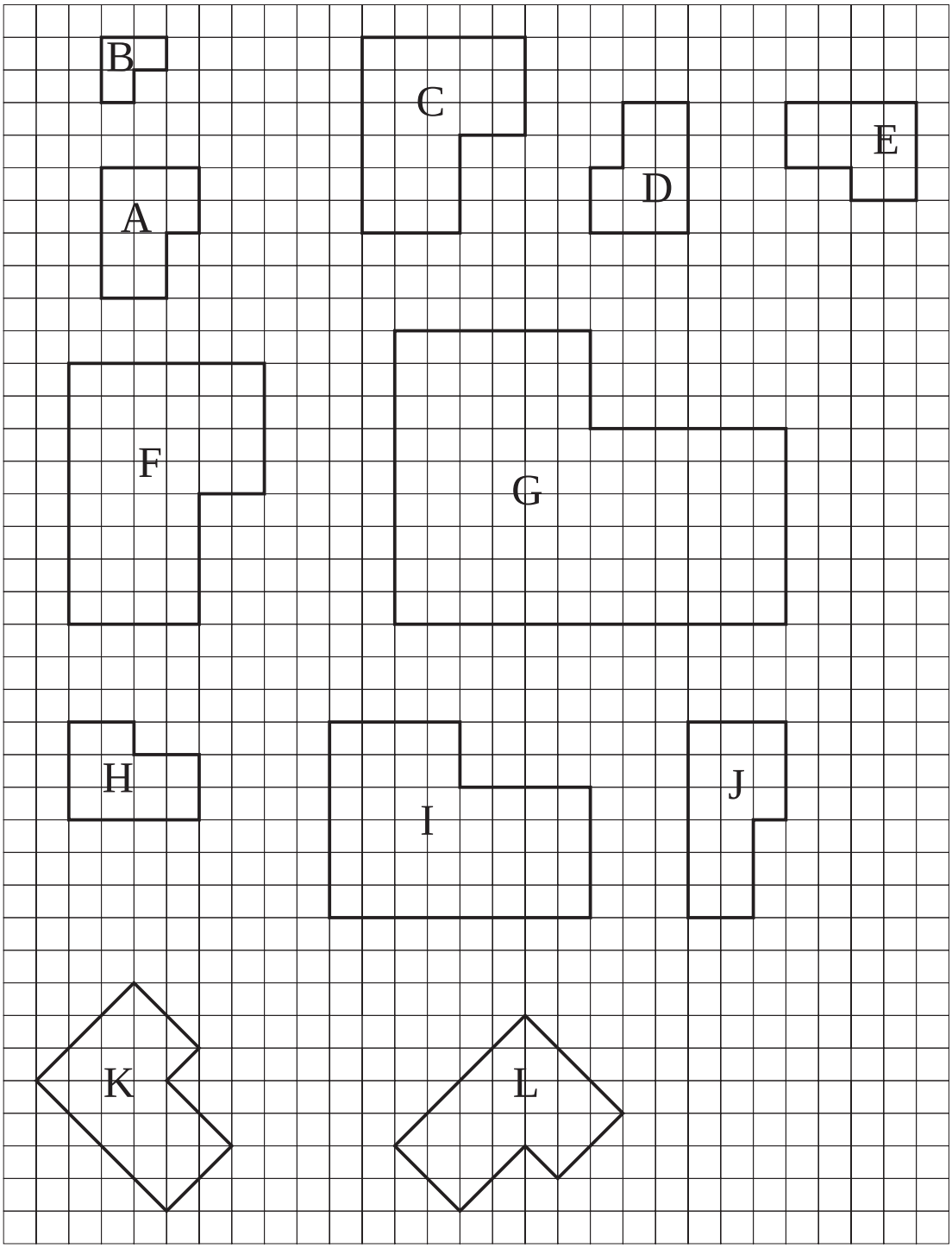
OS 7.1 *Shapes*

NAME	*ILLUSTRATION*	*NOTES*
Triangle		3 straight sides
Equilateral Triangle		3 equal sides and 3 equal angles (= 60 °)
Isosceles Triangle		2 equal sides and 2 equal angles
Right-angled Triangle		One angle = 90 °
Quadrilateral		4 straight sides
Square		4 equal sides and 4 right angles
Rectangle		Opposite sides equal and 4 right angles
Rhombus		4 equal sides; opposite sides parallel
Trapezium		One pair of opposite sides parallel
Parallelogram		Both pairs of opposite sides equal and parallel
Kite		Two pairs of adjacent sides equal

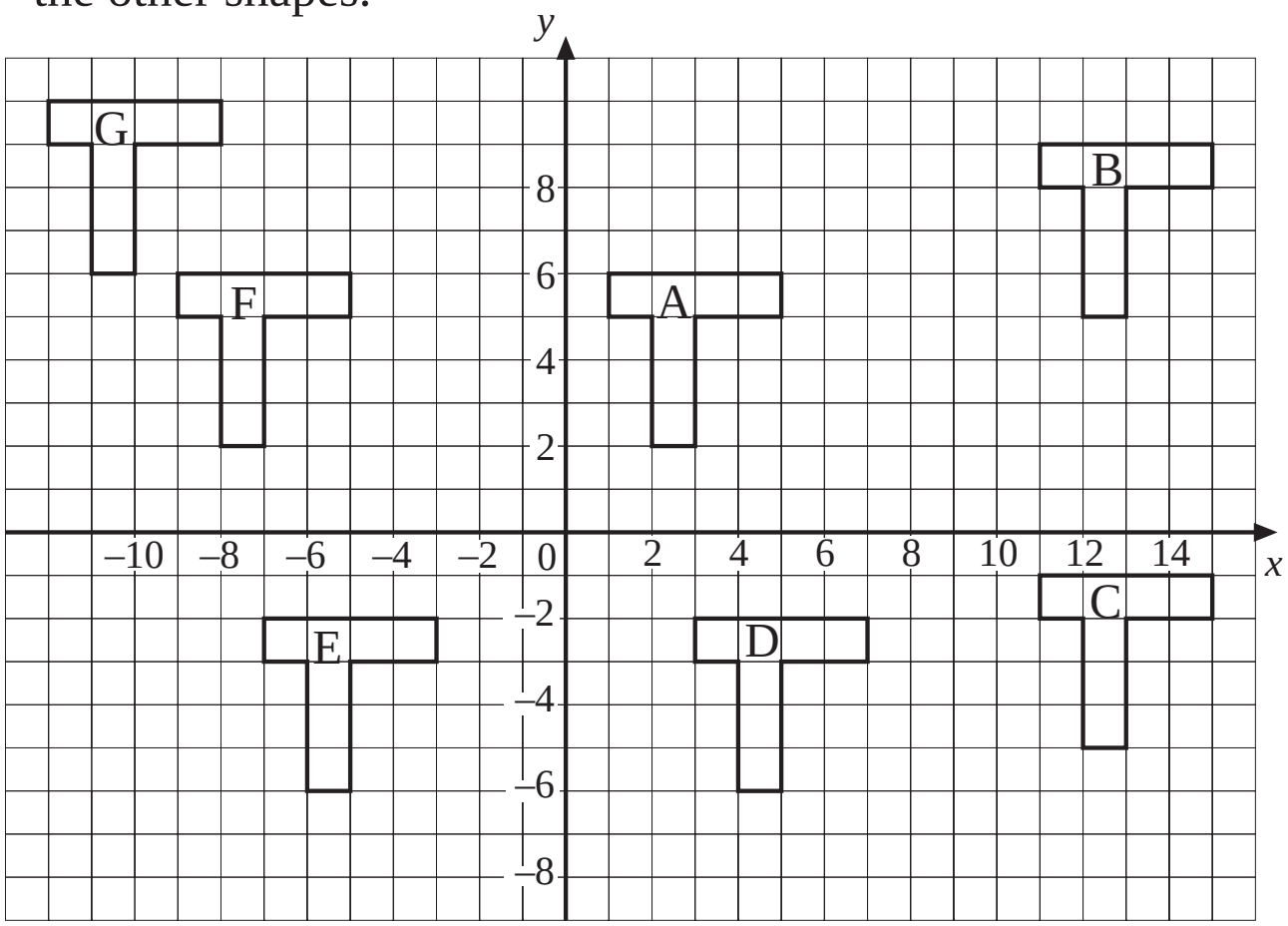
OS 7.2 *Congruent or Similar?*

1. Which of the following shapes are *congruent* to A ?
2. Which of the following shapes are *similar* to A ?



OS 7.3 *Translations*

Describe the translations that will take shape A to each of the other shapes.



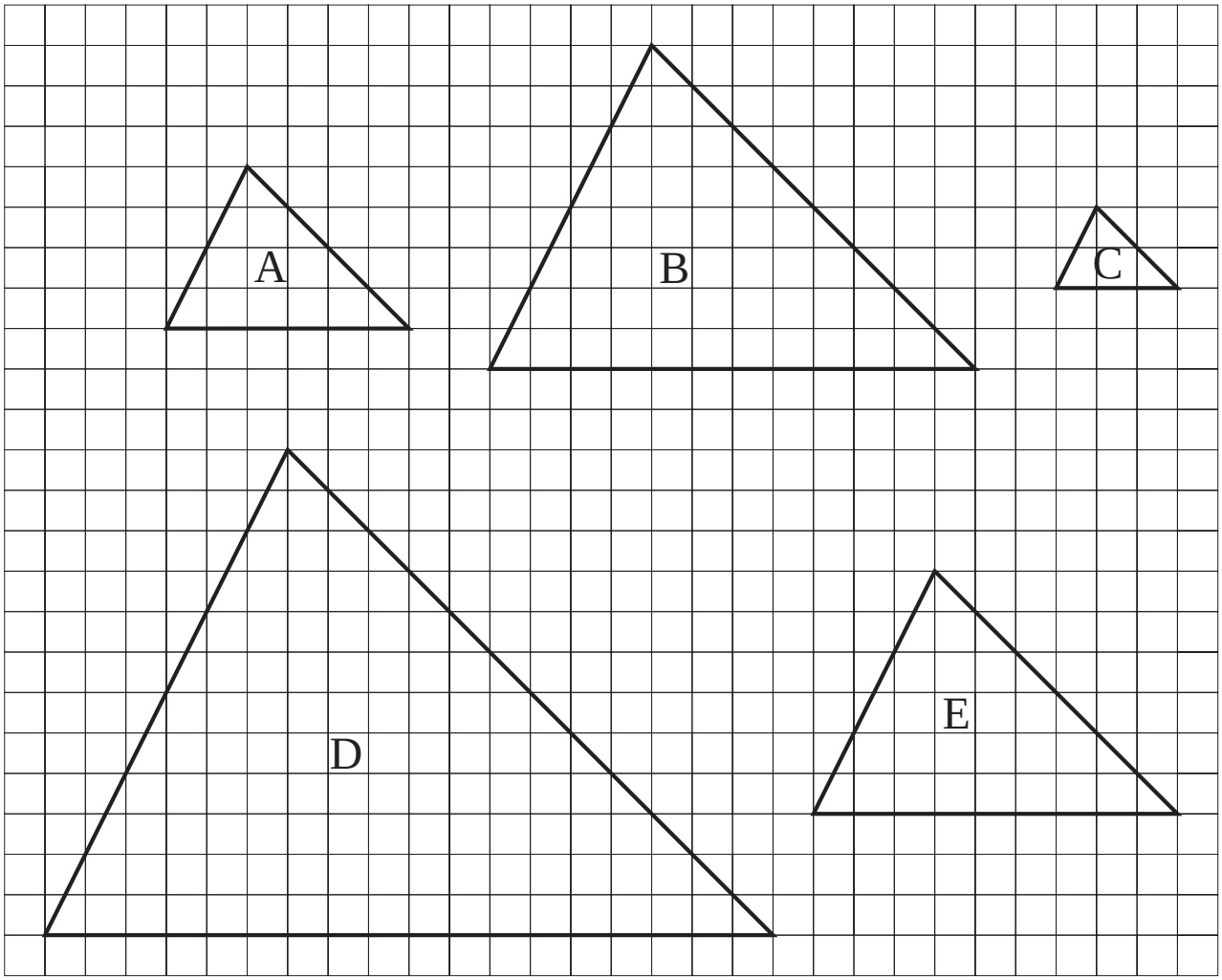
A → B ( ) A → C ( )

A → D ( ) A → E ( )

A → F ( ) A → G ( )

OS 7.4 *Enlargements: Scale Factor*

The triangle A has been enlarged to give the other triangles.



A $\rightarrow$ B Scale factor ☐ A $\rightarrow$ C Scale factor ☐

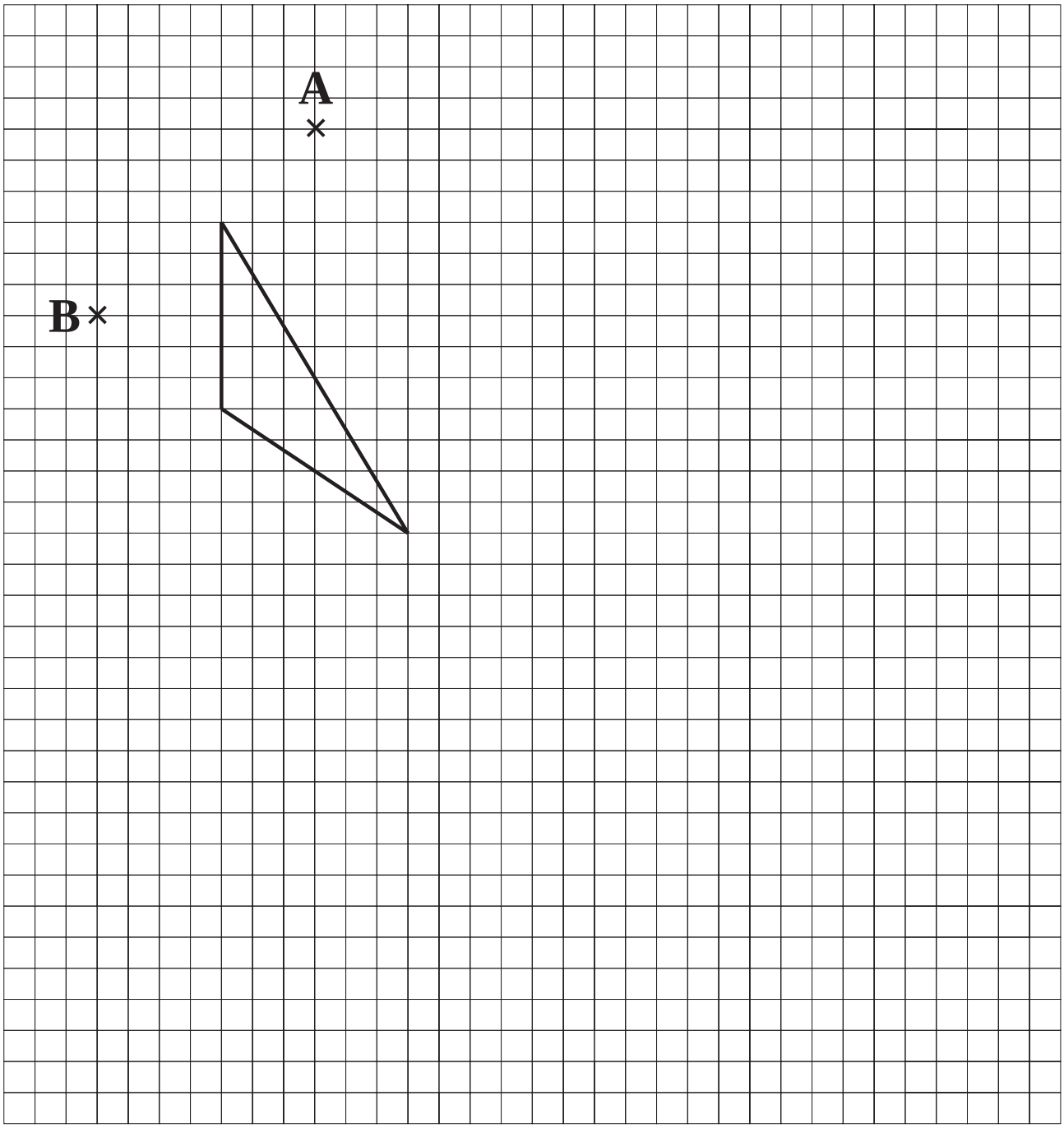
A $\rightarrow$ D Scale factor ☐ A $\rightarrow$ E Scale factor ☐

OS 7.5 *Centre of Enlargement*

Enlarge the triangle shown with:

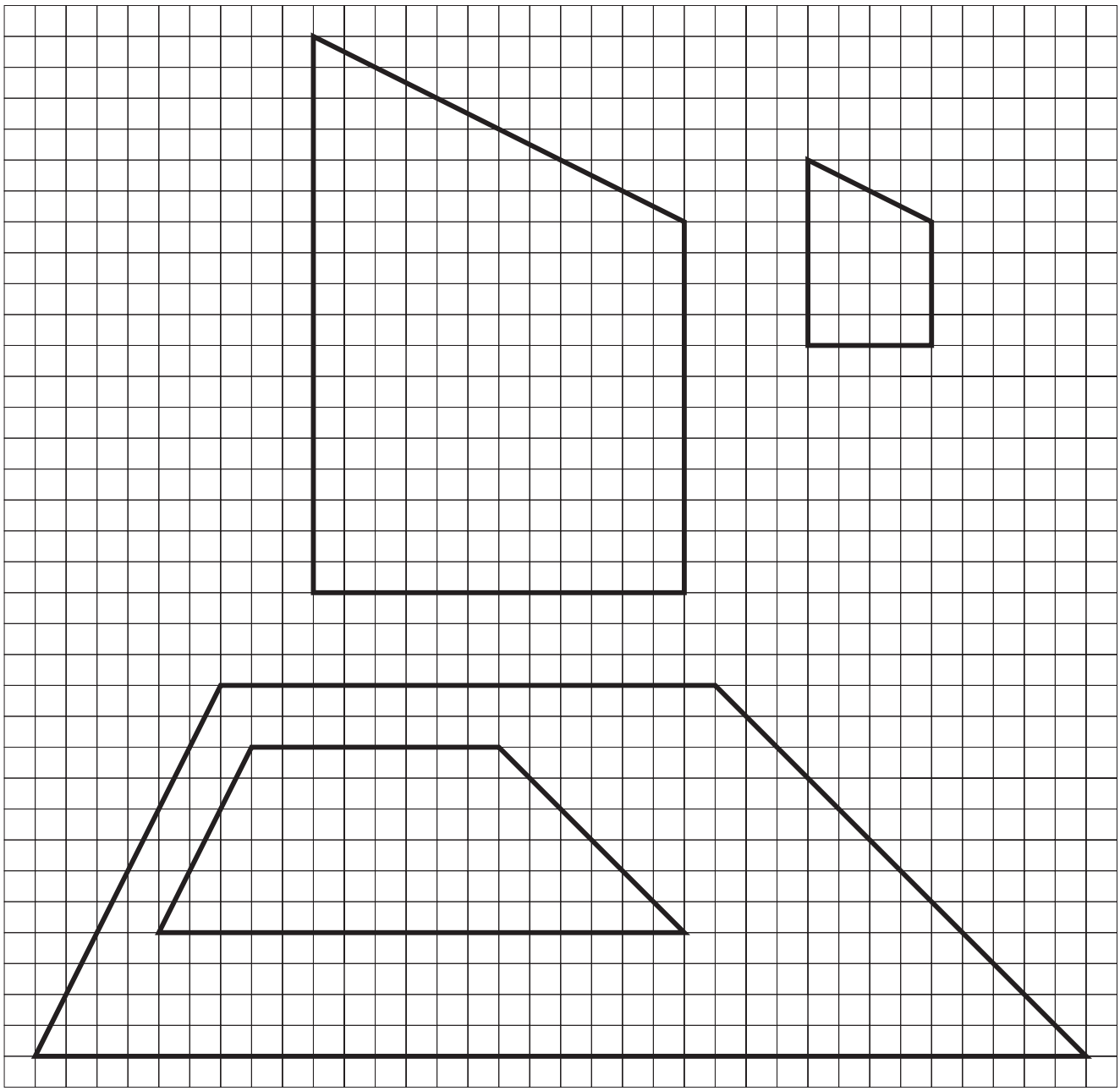
(a) centre of enlargement A and scale factor 2,

(b) centre of enlargement B and scale factor 3.



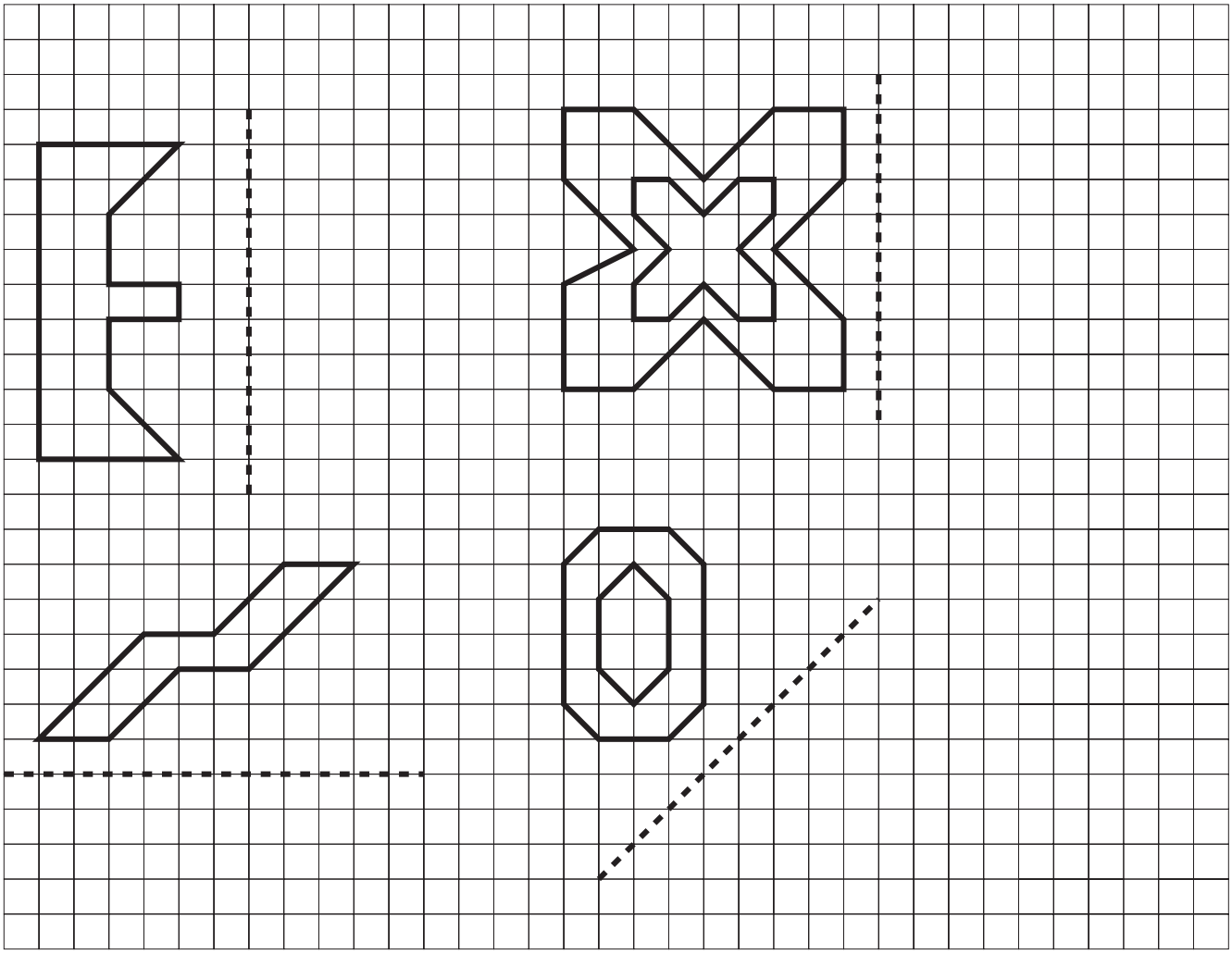
OS 7.6 *Finding the Centre of Enlargement*

Determine the centre of enlargement for each of the enlargements shown and also find the scale factor:



OS 7.7 *Reflections*

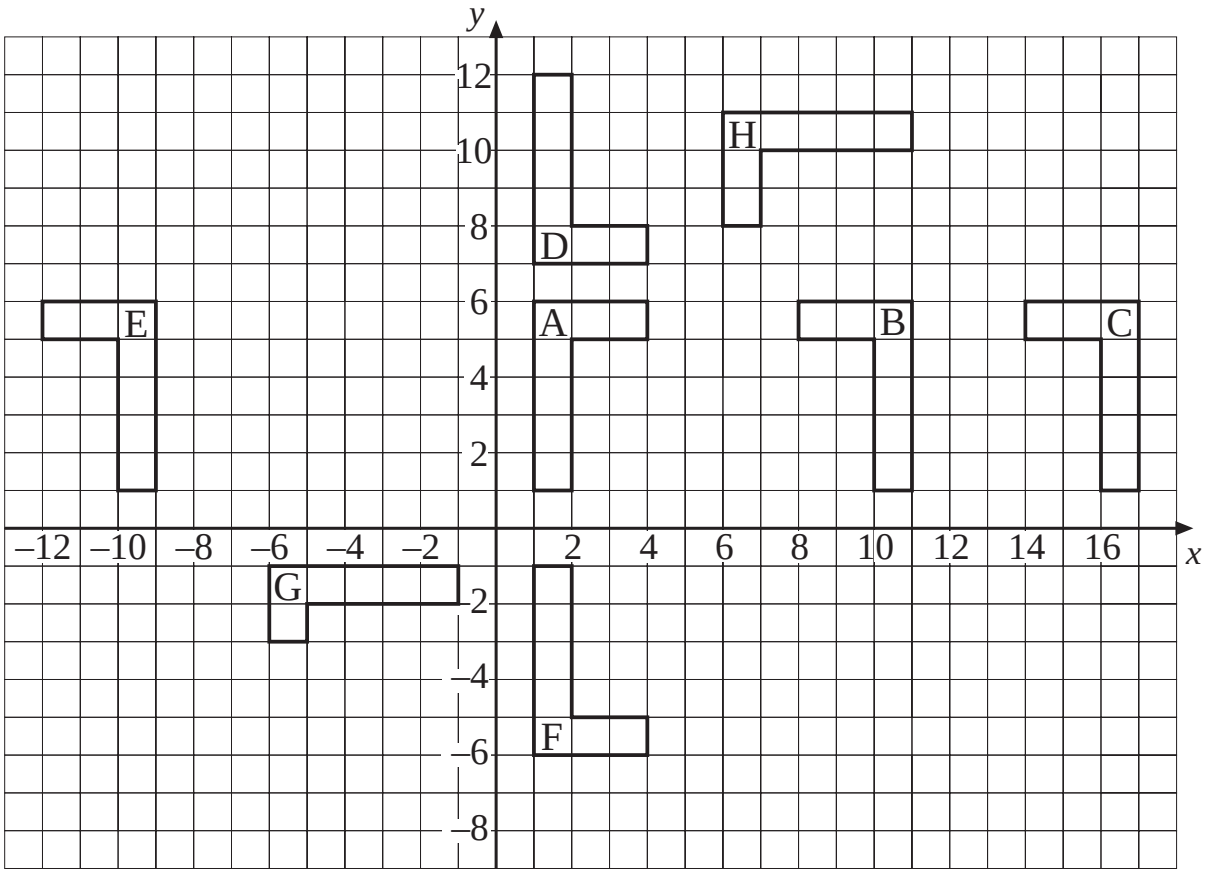
Draw the reflection of each shape in the mirror line shown:



OS 7.8 *Reflections: Equation of Mirror Line*

The diagram shows several reflections of the shape A.

Write down the equation of the mirror line for each reflection.



A → B

A → C

A → D

A → E

A → F

A → G

A → H

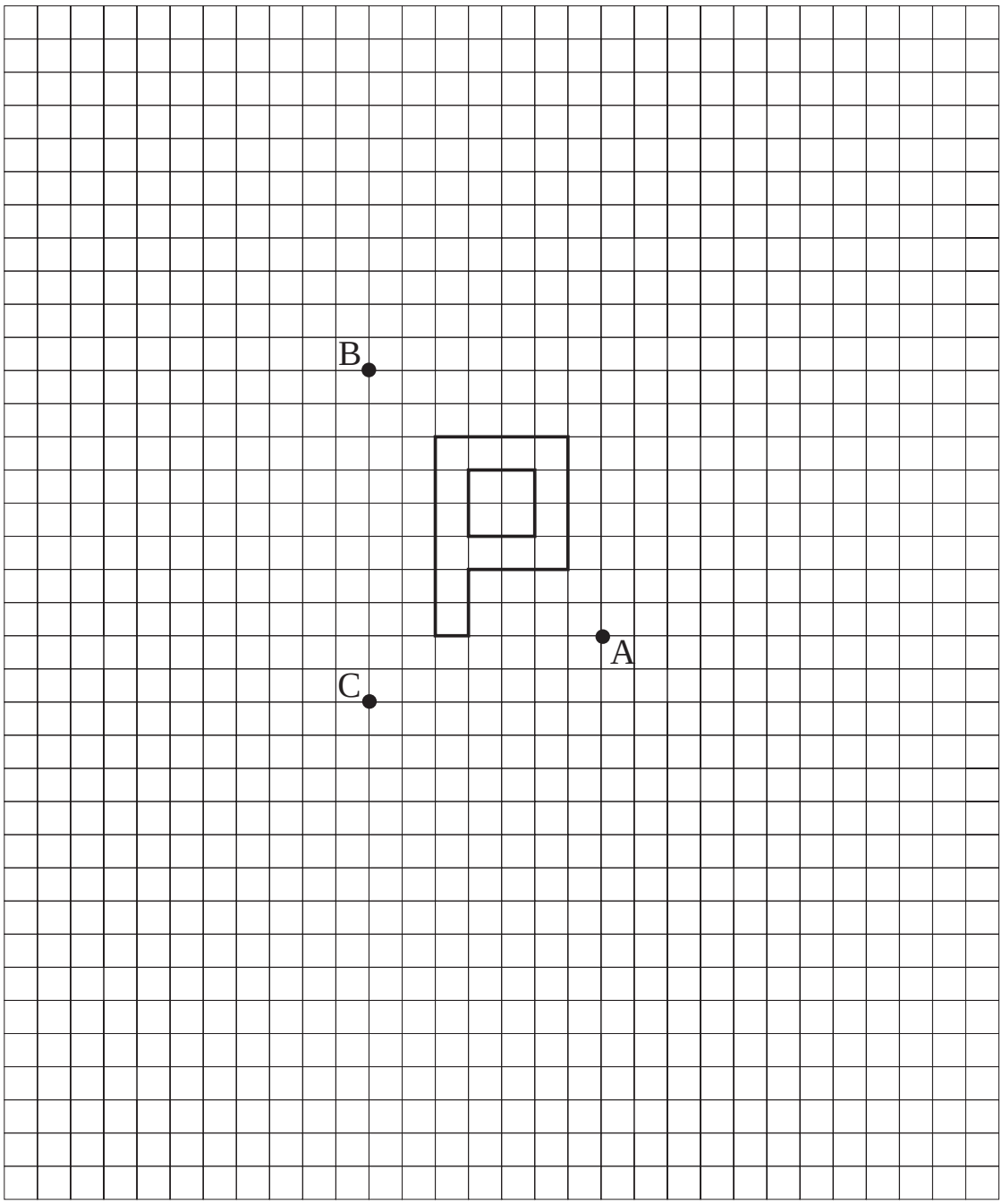
OS 7.9 *Rotations*

Rotate the shape shown through,

(a) 90 ° clockwise around the point A,

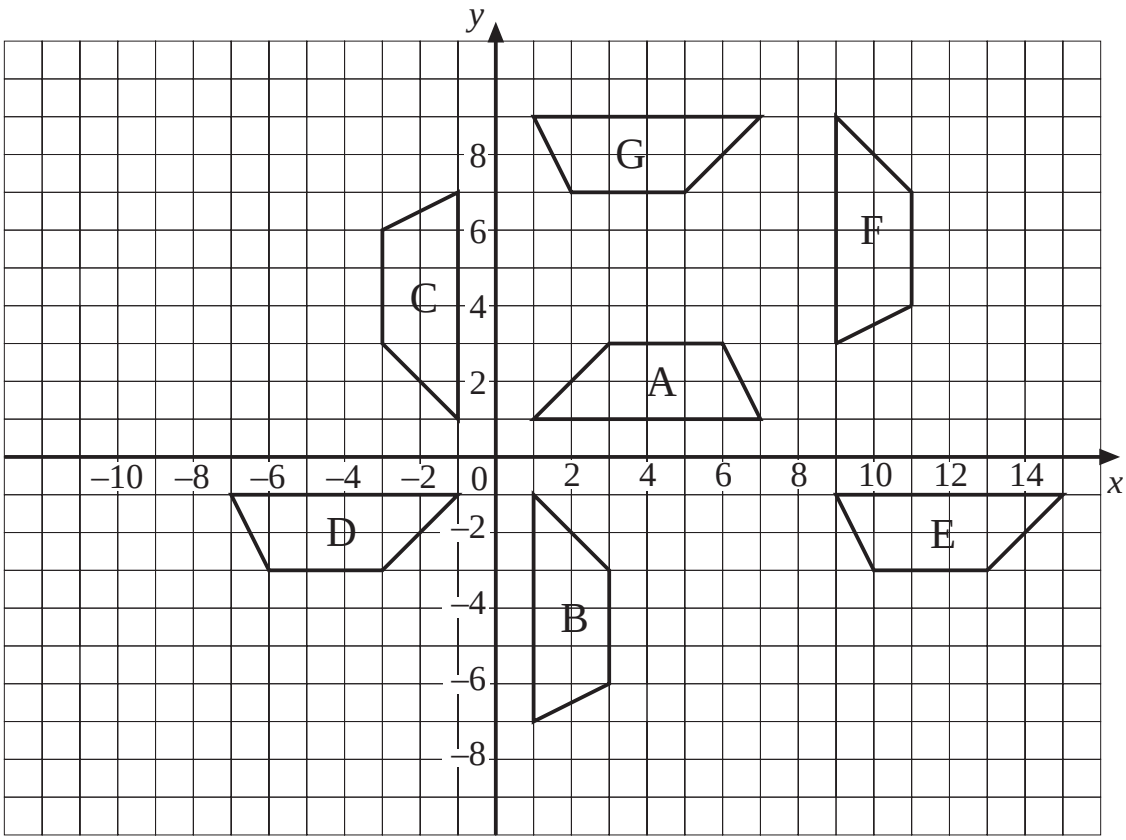
(b) 90 ° anticlockwise around the point B,

(c) 180 ° around the point C.



OS 7.10 *Describing Rotations*

The shape A is rotated to give the other shapes in the diagram. Describe each rotation.



A → B .....

A → C .....

A → D .....

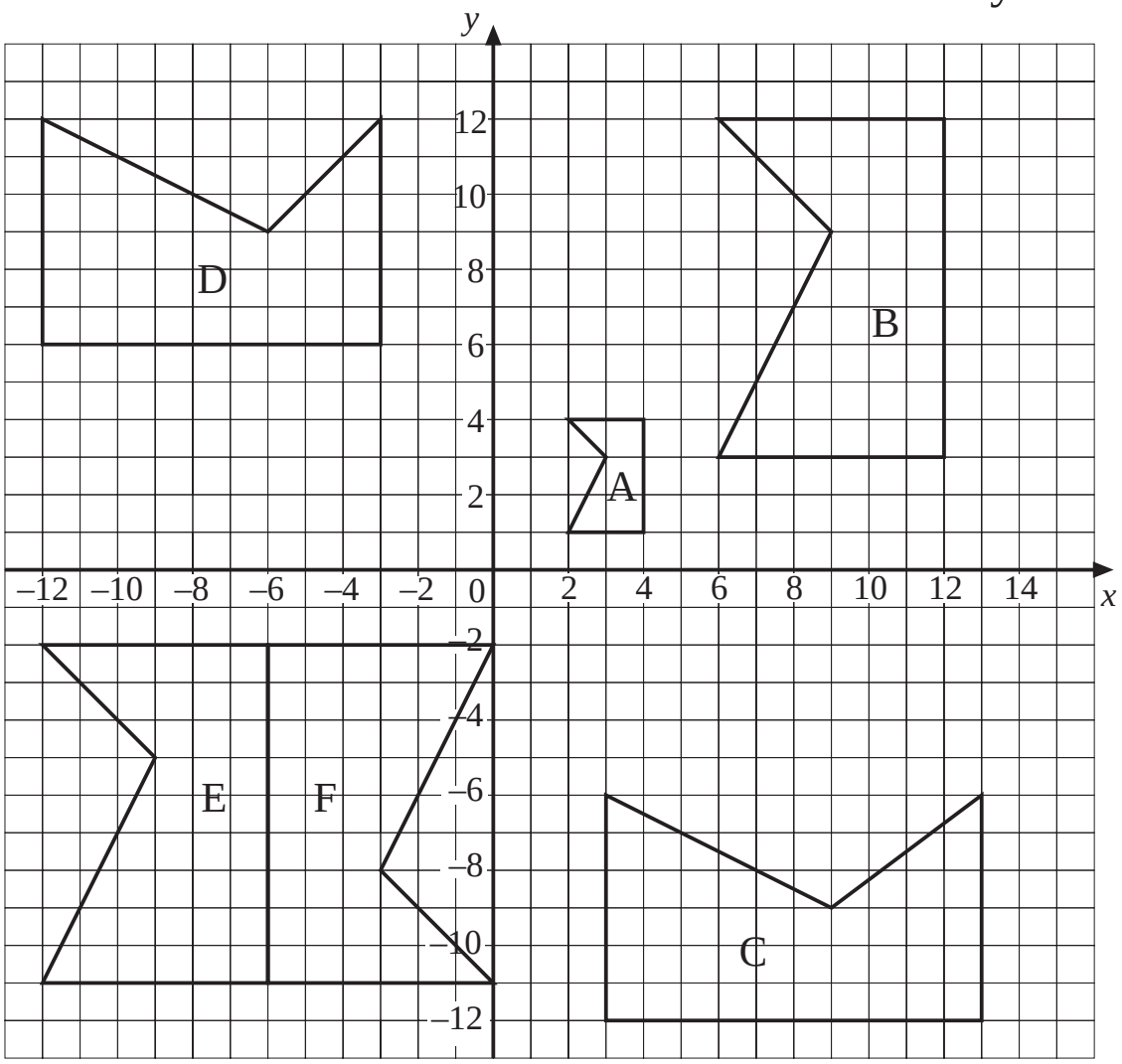
A → E .....

A → F .....

A → G .....

OS 7.11 *Combined Transformations*

The shape A moves to the shape F by a number of transformations. Describe each transformation fully.



A → B .....

B → C .....

C → D .....

D → E .....

E → F .....