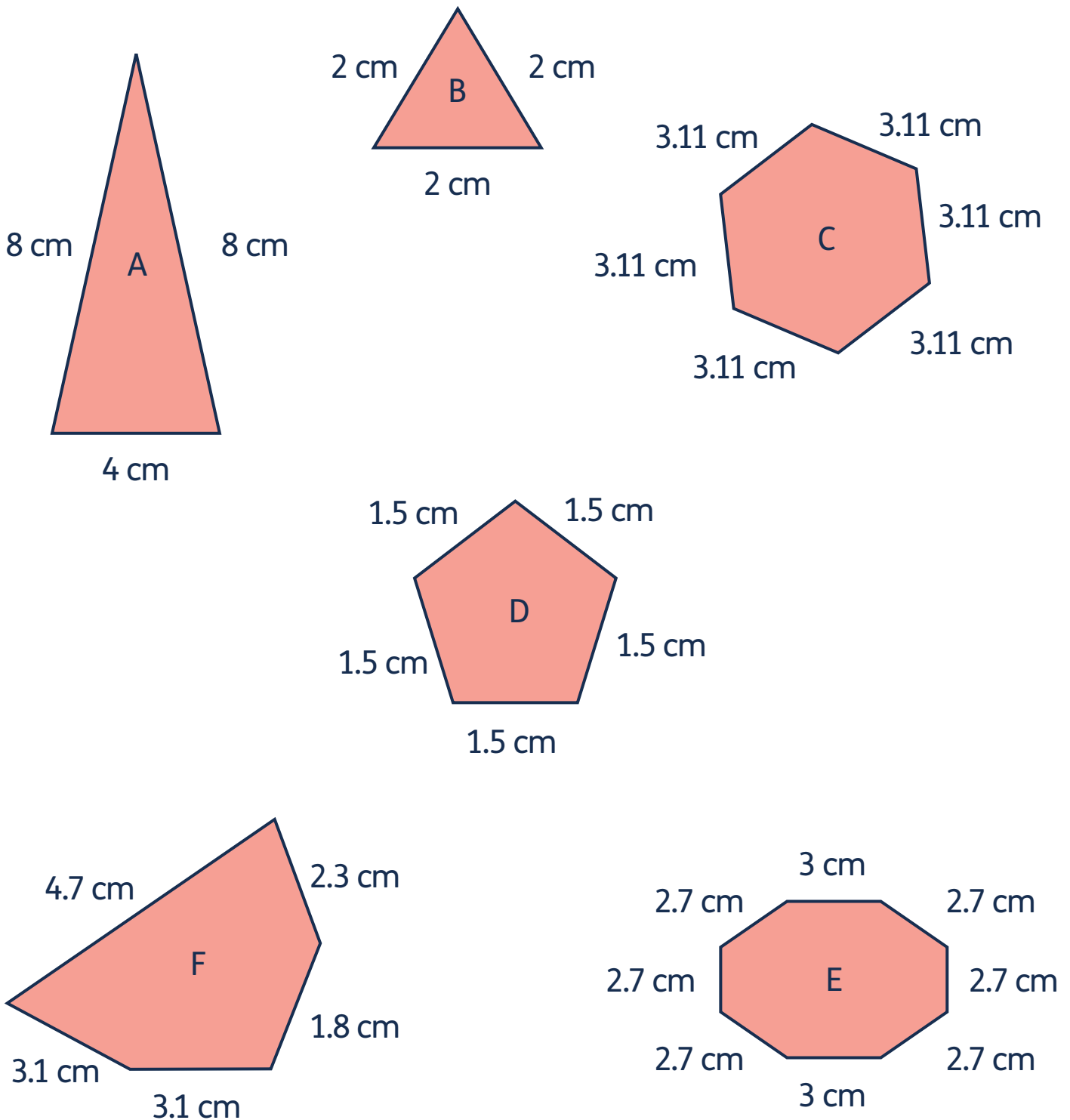


Geometry and measures

Question 1

Here are some shapes and measurements of their sides. Use these shapes to answer the questions on the next page.



Geometry and measures

irregular triangle irregular hexagon irregular pentagon regular hexagon
 regular octagon regular pentagon regular triangle irregular octagon

a Can you fill in the table with the best name to describe each shape?

Shape	Name
A	
B	
C	
D	
E	
F	

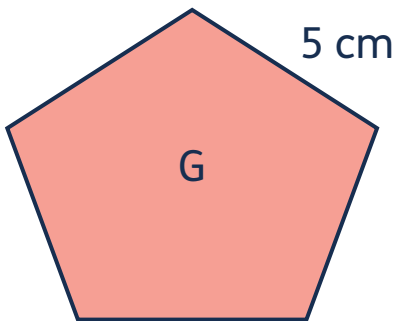
b In which shapes do you expect all the interior angles to be the same?

c The interior angles in shape B add up to 180° . What is the measurement of each angle in shape B?



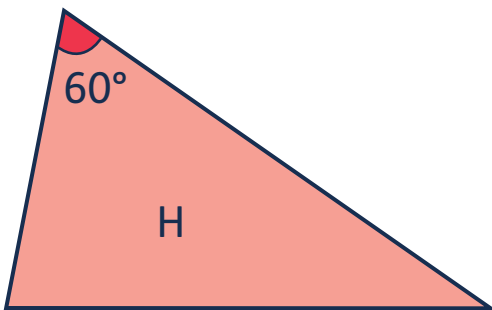
Geometry and measures

Question 2



Shape G is a regular pentagon. One side is 5 cm long. What is its perimeter?

cm



Shape H is an irregular triangle. Its interior angles add up to 180° . One of its angles is 60° . What could the other two angles be? Make two pairs of suggestions.

Question 3

This is one face of a 3D shape.



a Which 3D shapes could it be? Tick all that apply.

cube

triangular prism

cone

cuboid

square-based pyramid

cylinder

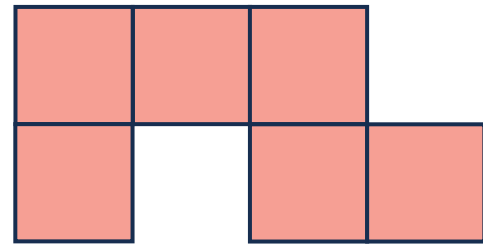
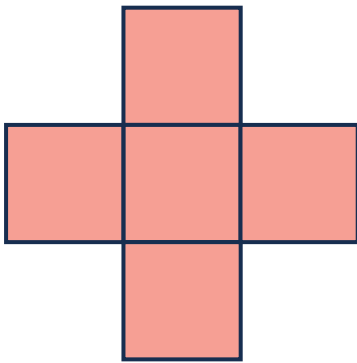
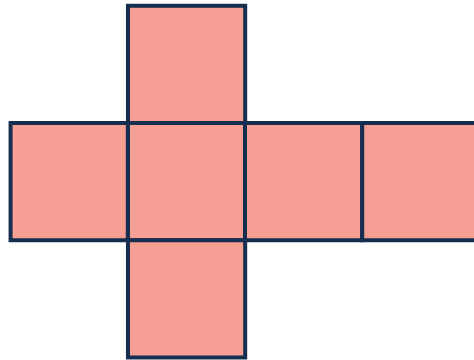
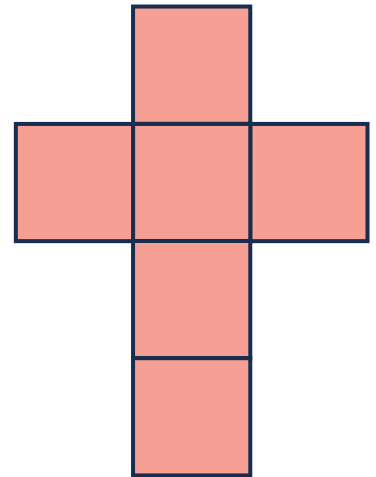
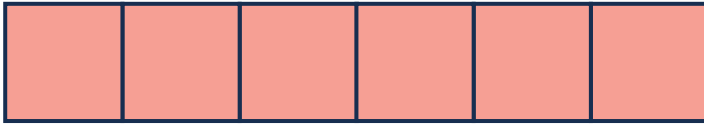
b Draw another face that could be used in at least two different 3D shapes. What 3D shapes use your chosen face?



Geometry and measures

Question 4

a Circle the nets that could be folded to make cubes.

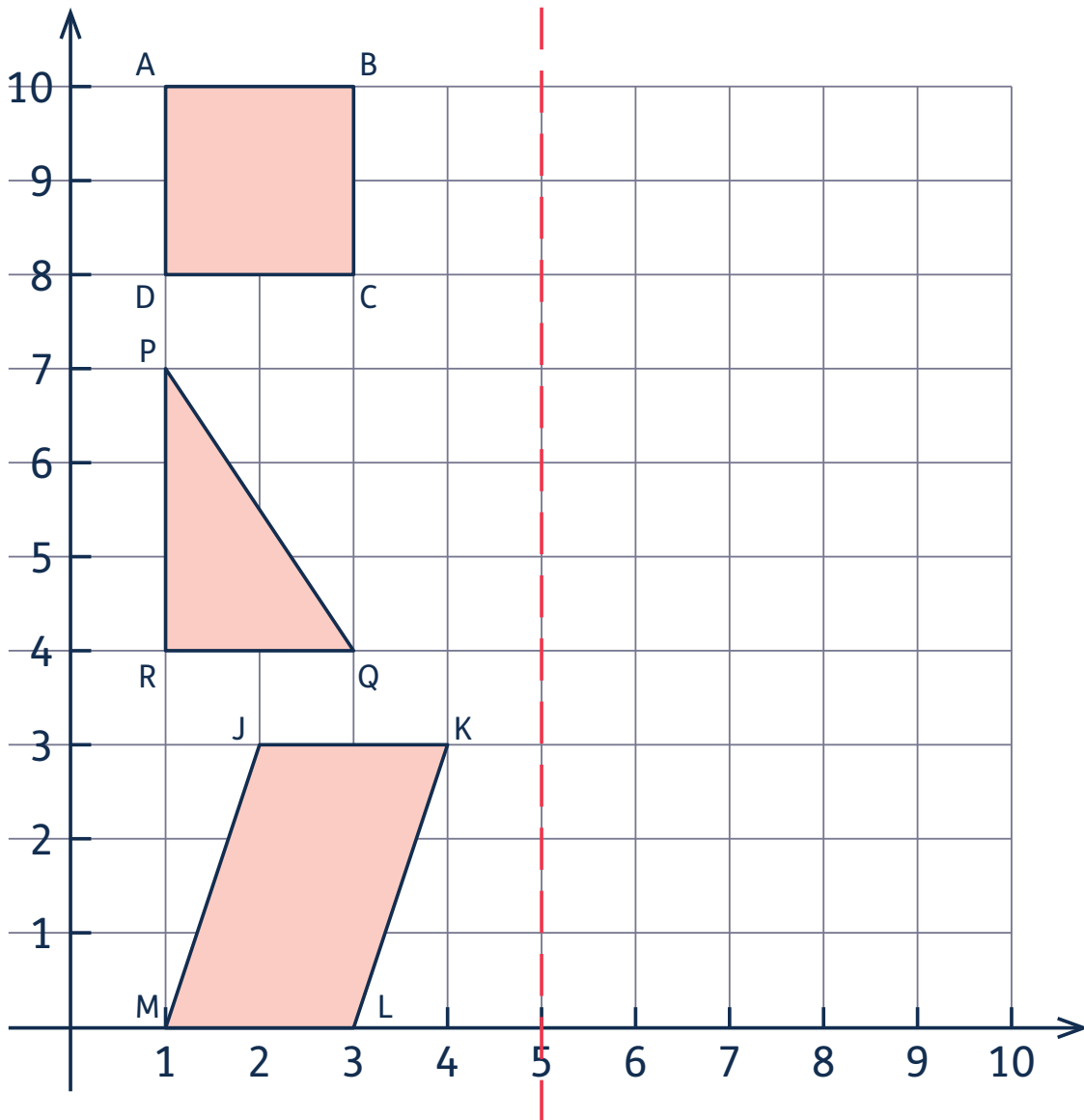


b Can you draw your own net that could be folded to make a cube?



Geometry and measures

Question 5



Here are three shapes on a graph.

a Which of the shapes is a regular polygon?

b Draw the reflections of the shapes in the mirror line.



Geometry and measures

- c** Fill in the new coordinates of the reflected shapes from the previous page in the table.

Shape	Old coordinates	New coordinates
ABCD	A (1,10), B (3,10), C (3,8), D (1,8)	A' (<input type="text"/> , <input type="text"/>), B' (<input type="text"/> , <input type="text"/>), C' (<input type="text"/> , <input type="text"/>), D' (<input type="text"/> , <input type="text"/>)
PQR	P (1,7), Q (3,4), R (1,4)	P' (<input type="text"/> , <input type="text"/>), Q' (<input type="text"/> , <input type="text"/>), R' (<input type="text"/> , <input type="text"/>)
JKLM	J (2,3), K (4,3), L (3,0), M (1,0)	J' (<input type="text"/> , <input type="text"/>), K' (<input type="text"/> , <input type="text"/>), L' (<input type="text"/> , <input type="text"/>), M' (<input type="text"/> , <input type="text"/>)

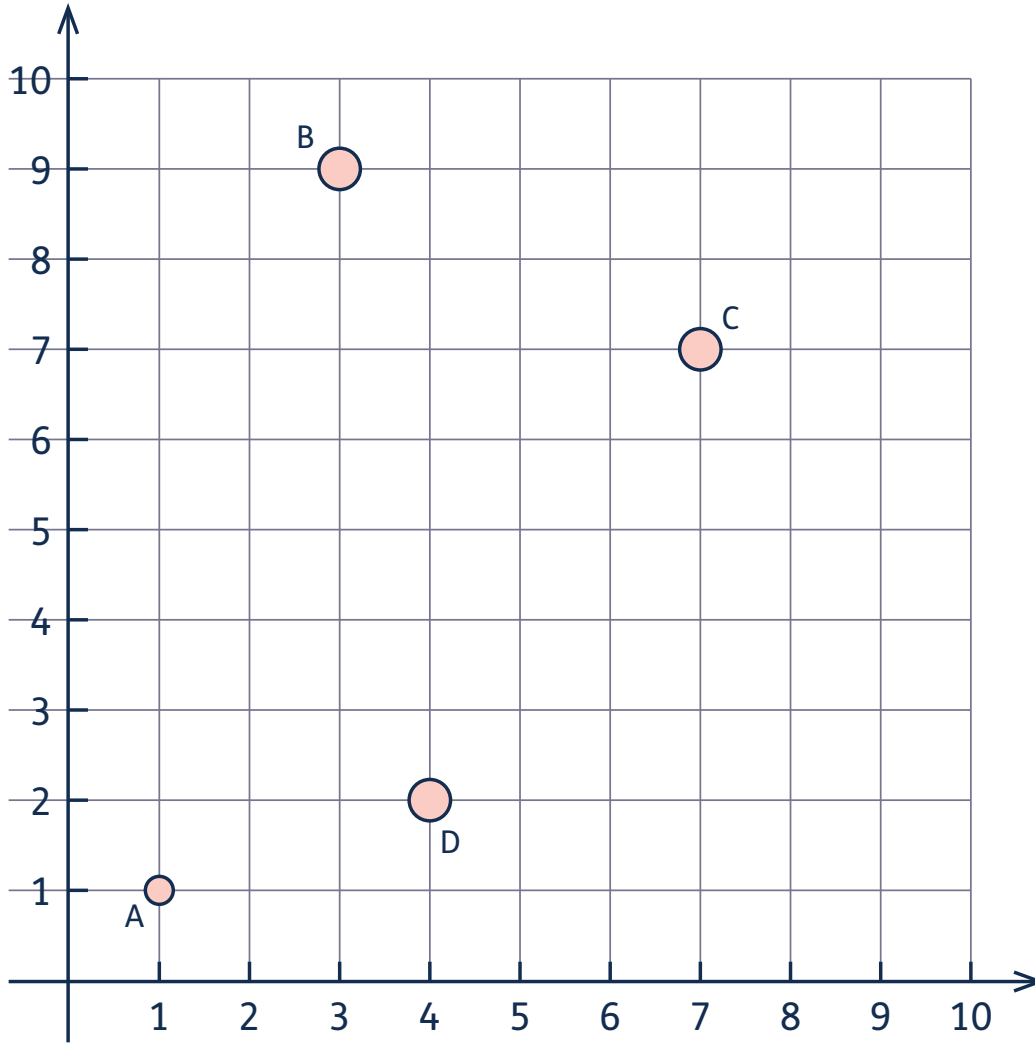
- d** What do you notice about the y-axis coordinates?



Geometry and measures

Question 6

The dot at A (1,1) is going to visit points B, C and D in order, then return to A.



Use as few translations as possible.

Point A to Point B	B to C	C to D	D to A
Up <input type="text"/>	Up <input type="text"/>	Up <input type="text"/>	Up <input type="text"/>
Down <input type="text"/>	Down <input type="text"/>	Down <input type="text"/>	Down <input type="text"/>
Left <input type="text"/>	Left <input type="text"/>	Left <input type="text"/>	Left <input type="text"/>
Right <input type="text"/>	Right <input type="text"/>	Right <input type="text"/>	Right <input type="text"/>

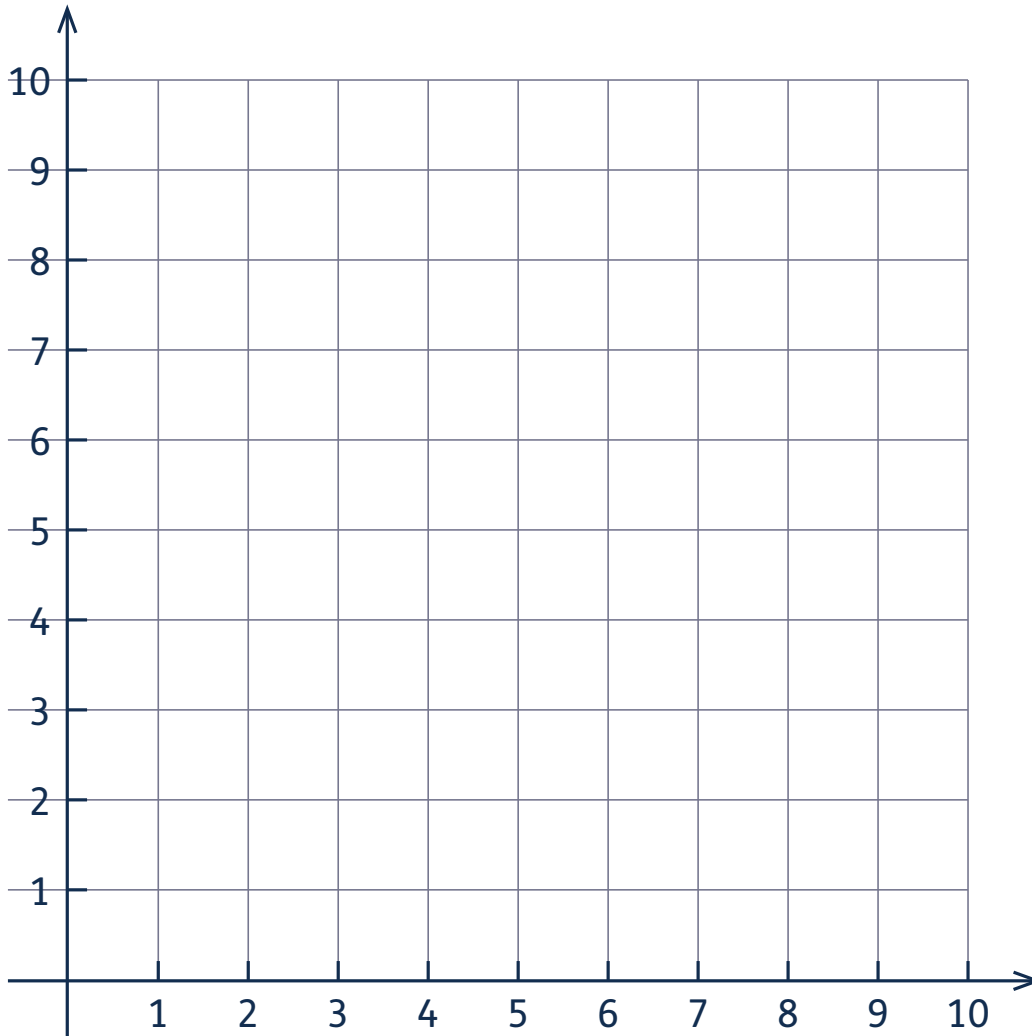


Geometry and measures

Question 7

a Plot these points on the graph below to make shape ABC.

A (3,1), B (5,4), C (7,1)



b Shape ABC is now moved right 3 and up 6 to make shape DEF. What are the new coordinates of Shape DEF?

D: E: F:

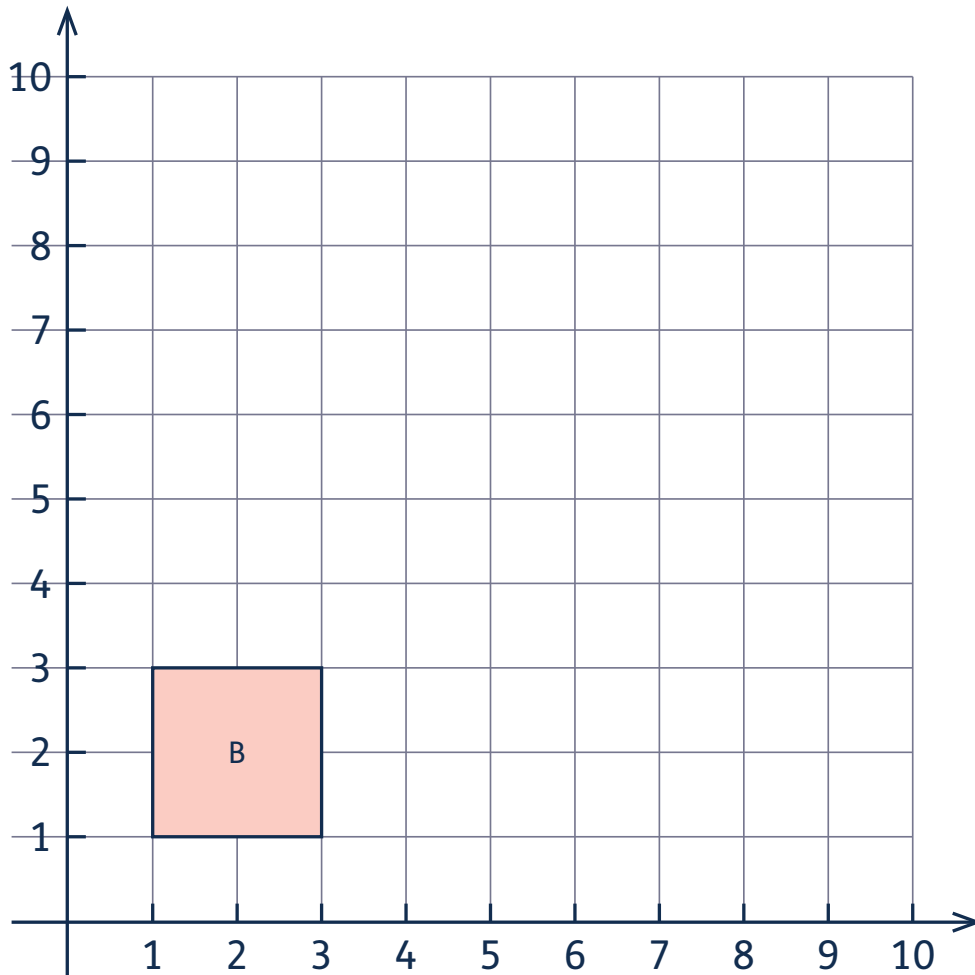
c Can you draw shape DEF on the grid?



Geometry and measures

Question 8

Here is Shape B.



Shape B moves to the new coordinates: (7,1), (7,3), (9,1), (9,3)

a Draw its new position on the graph.

b What translation has occurred?

Up

Left

Down

Right

c Draw a mirror line that would have reflected an image of Shape B to the same coordinates.

