

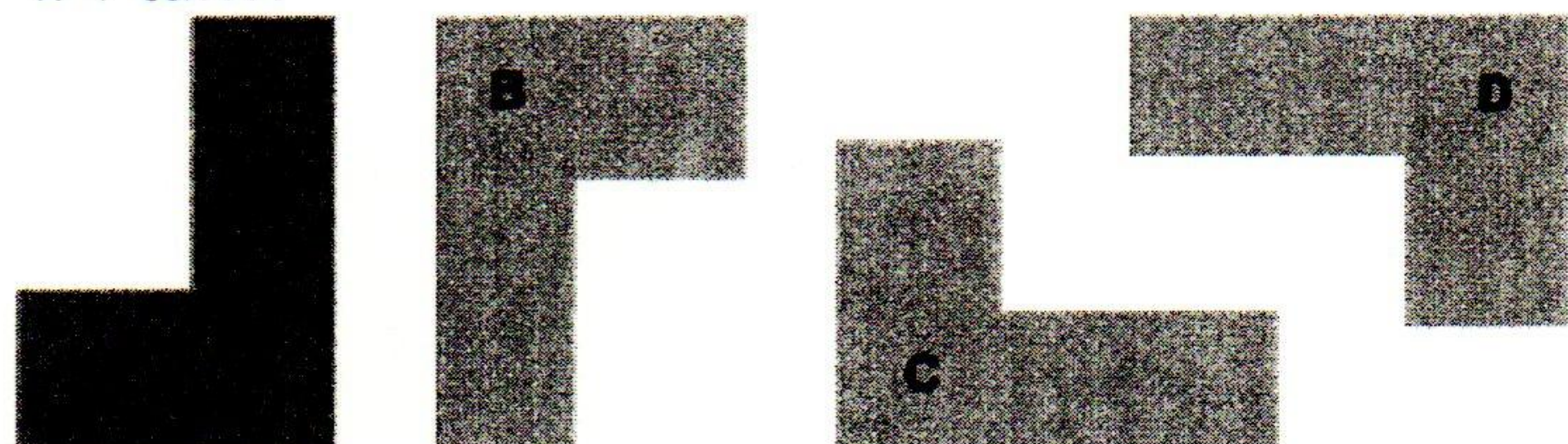
Translation and Rotation

The angles of rotation that occur in GCSE examinations are $\frac{1}{4}$ turn or 90° , $\frac{1}{2}$ turn or 180° and $\frac{3}{4}$ turn or 270° .

A **rotation** transforms a 2-D shape to a new position by turning it about a fixed point called the **centre of rotation**.

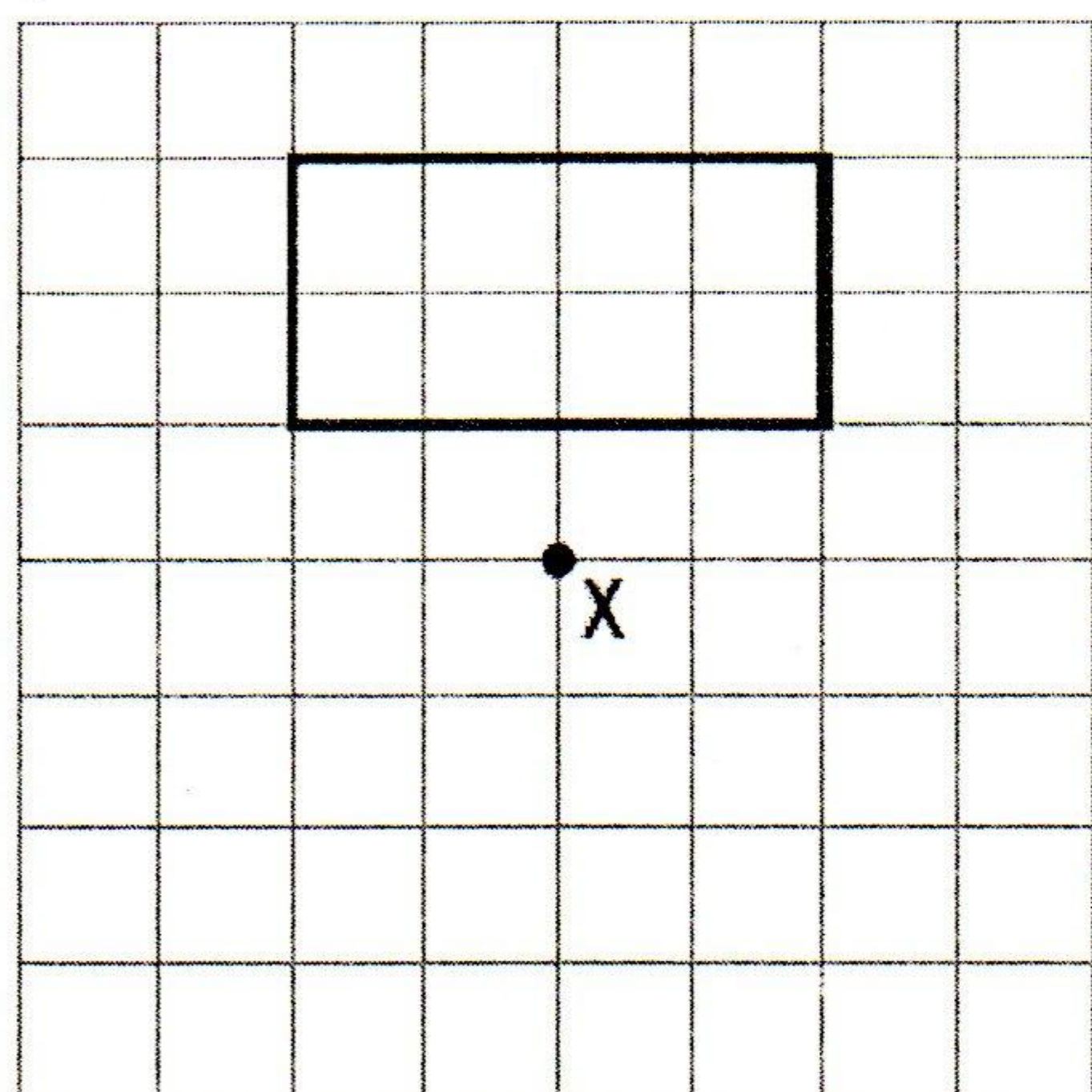
Exercise: 15

1. Shape A is rotated in a clockwise direction. Which of the following shows A after $\frac{1}{4}$ turn?



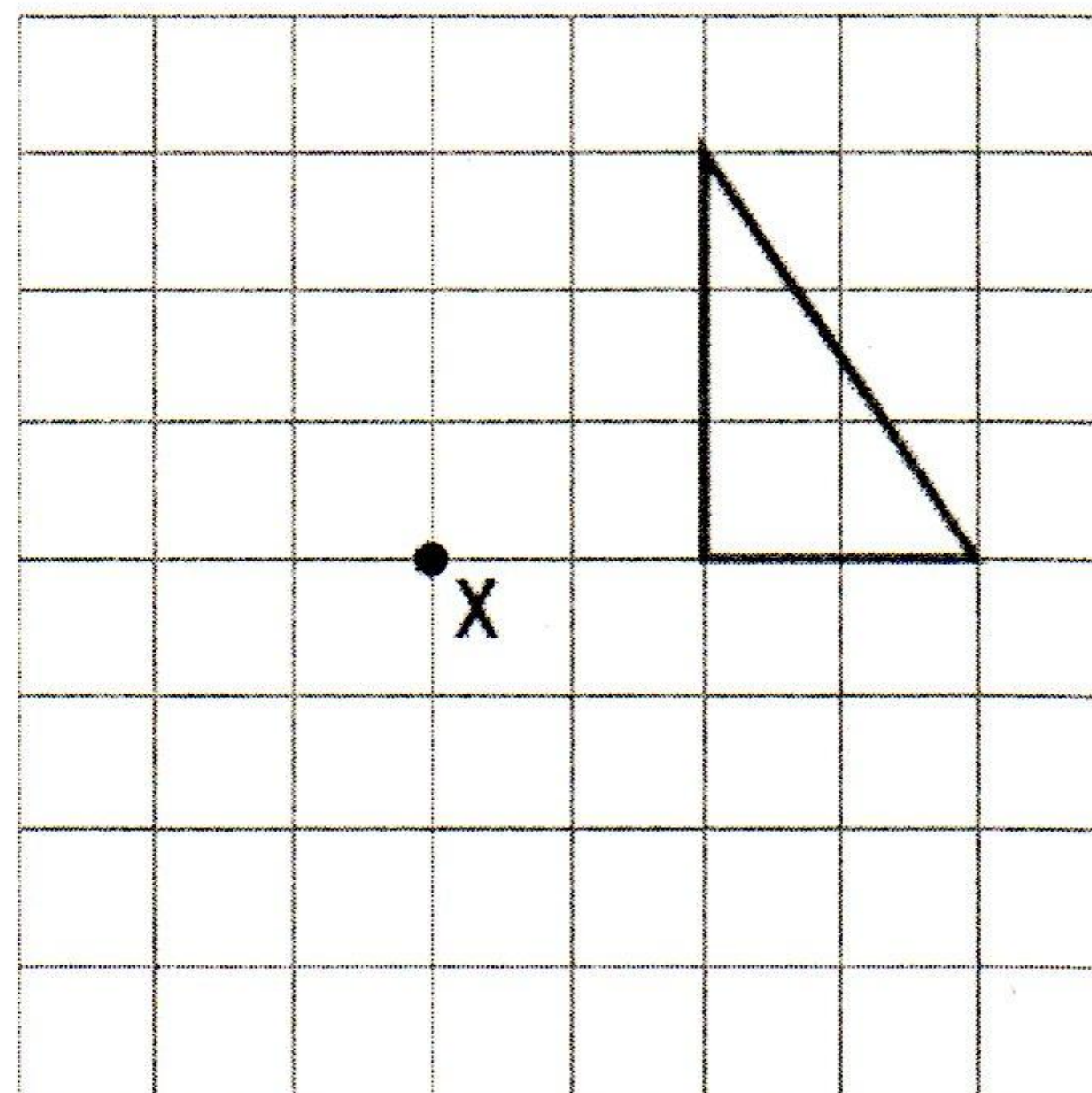
2. Copy each of these diagrams onto squared paper. Draw each image, using the given rotation about the centre of rotation, X.

a)



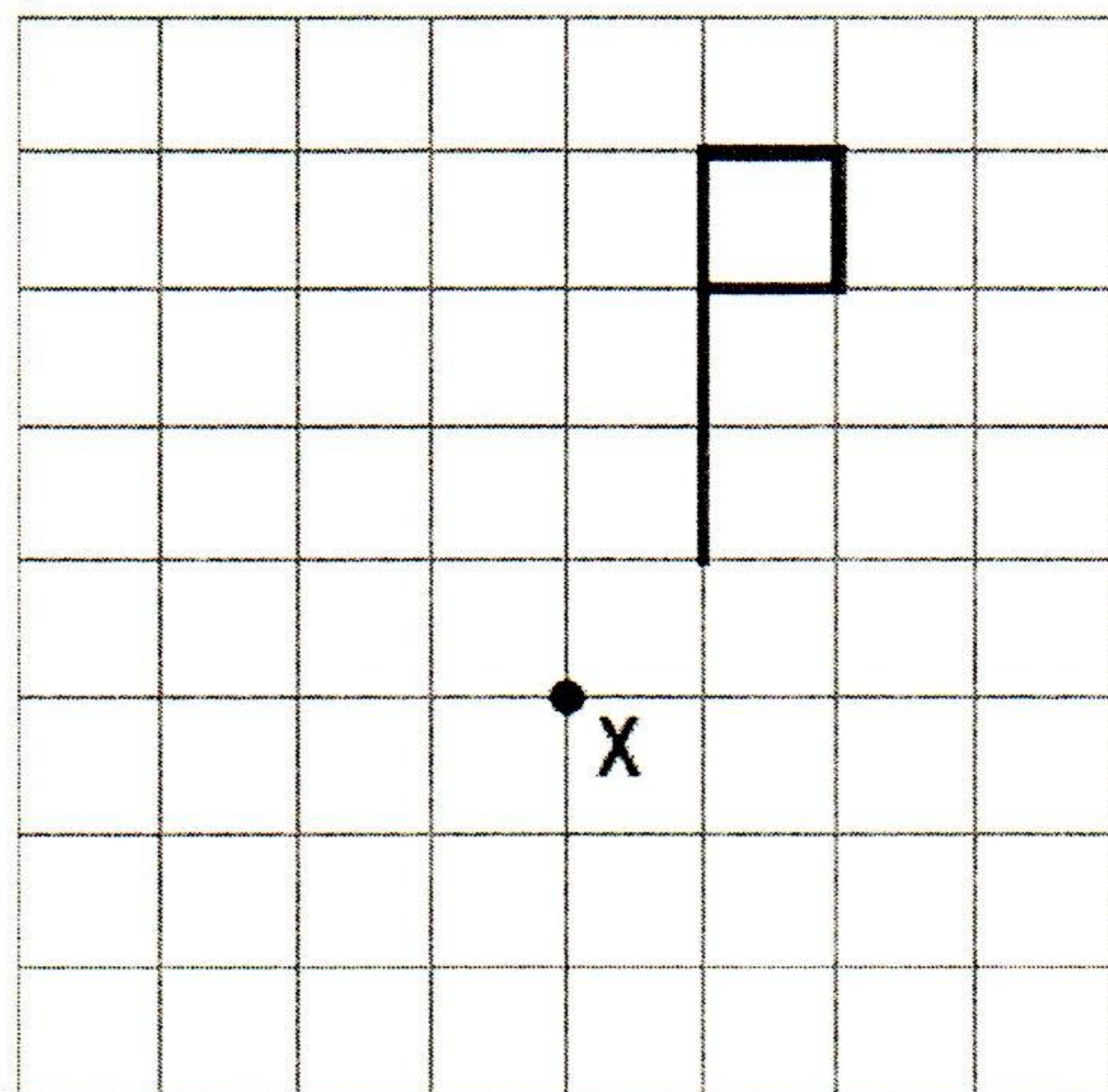
90° clockwise

b)



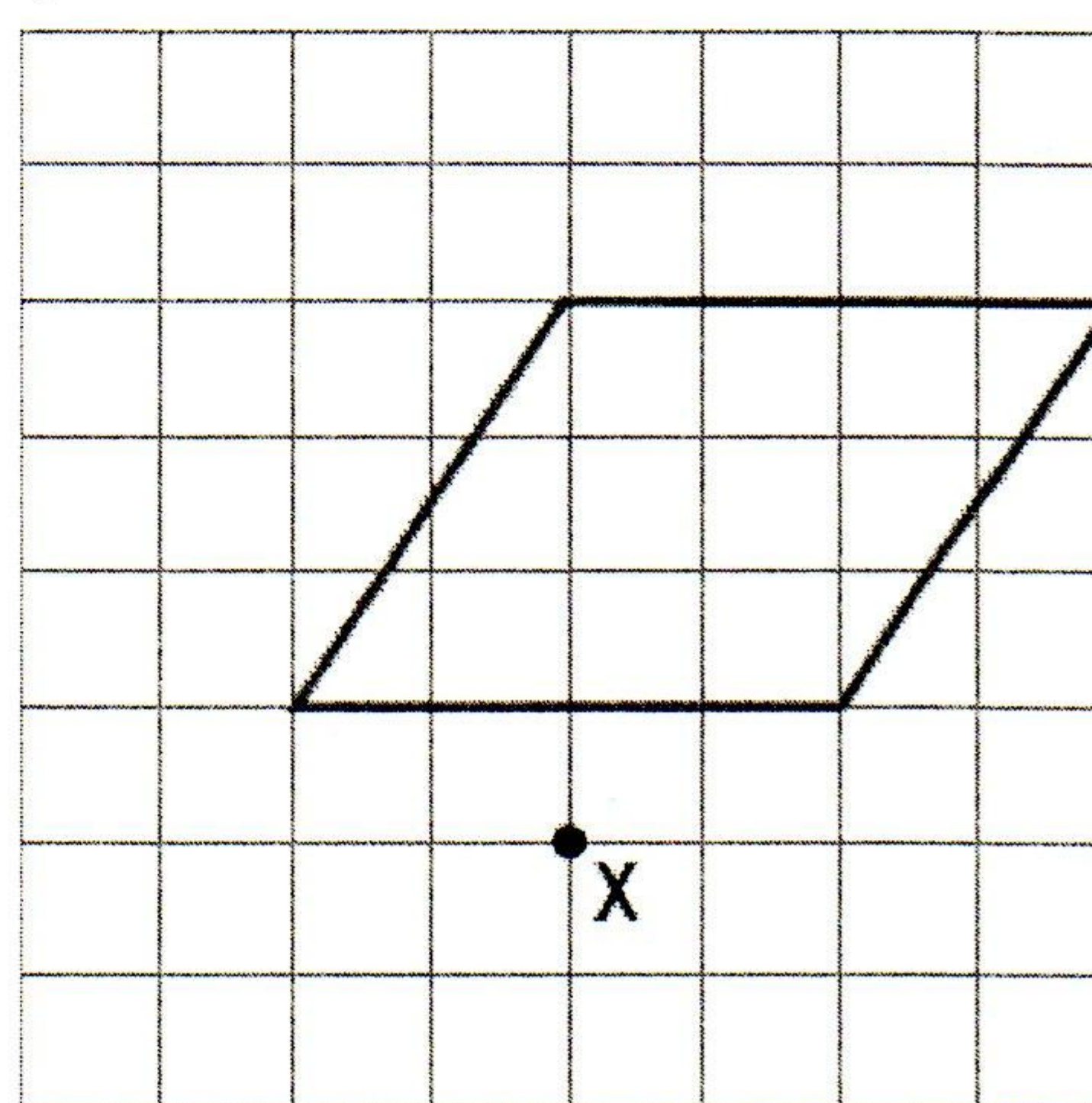
180° clockwise

c)



90° anticlockwise

d)



270° clockwise