1. Nov/2023/Paper_0444/23/No.11
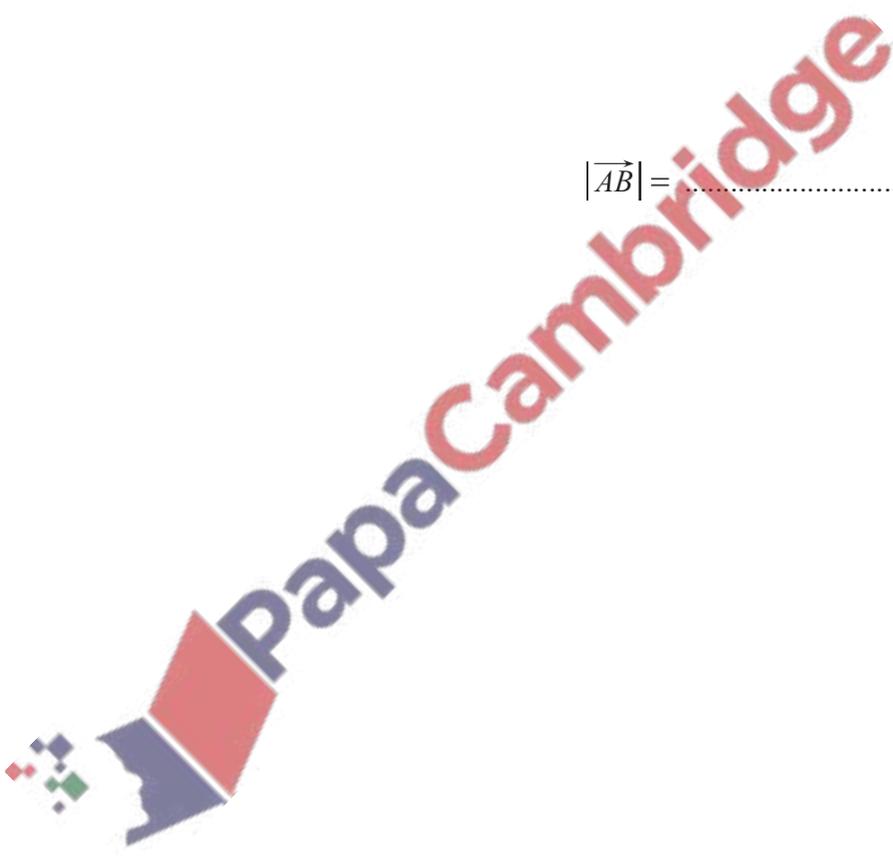
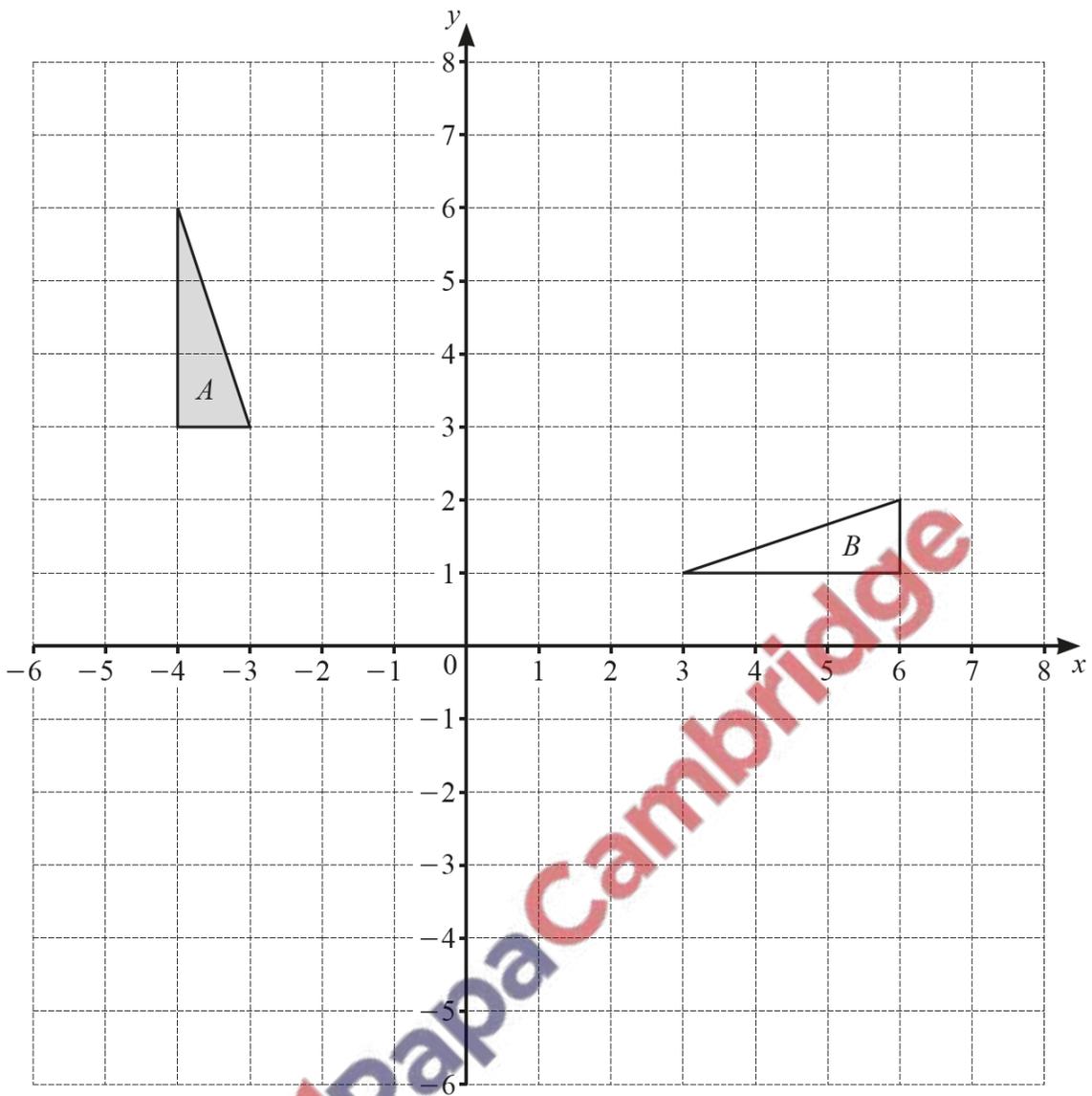$$\overrightarrow{AB} = \begin{pmatrix} 7 \\ -3 \end{pmatrix}$$

(a) Find $3\overrightarrow{AB}$.

$$\begin{pmatrix} \\ \end{pmatrix}$$ [1]

(b) Find $\left|\overrightarrow{AB}\right|$, leaving your answer in radical form.

$\left|\overrightarrow{AB}\right| =$ .... [2]

(a) Describe fully the **single** transformation that maps triangle A onto triangle B.

....

.... [3]

(b) Draw the image of triangle A after

    (i) a reflection in the line $y = 1$ [2]

    (ii) a translation by the vector $\begin{pmatrix} 5 \\ -7 \end{pmatrix}$ [2]

    (iii) an enlargement, scale factor 2, center $(-4, 5)$.   [2]