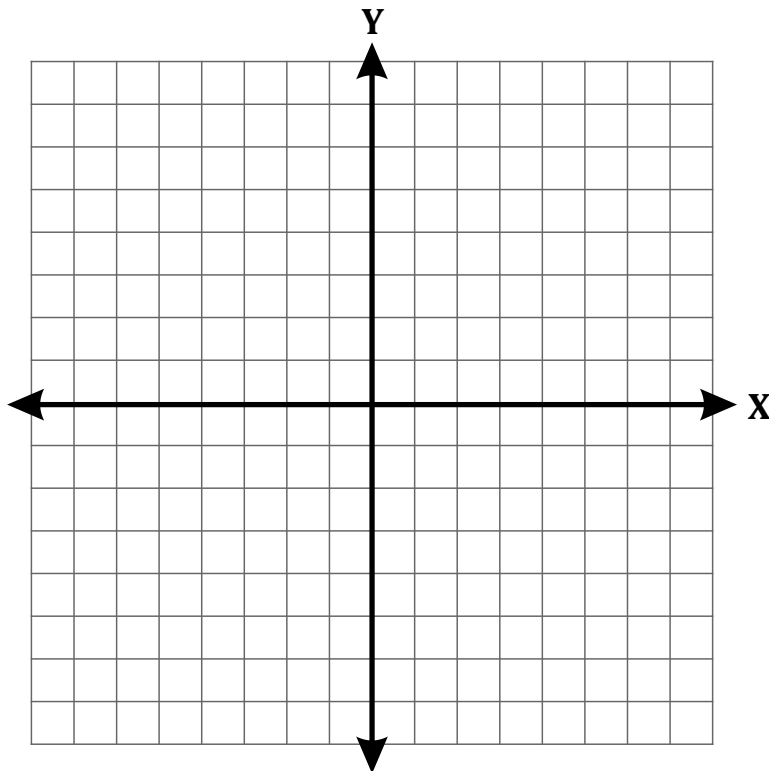


- (1) (a) Draw quadrilateral ABCD with $A(-1 ; 1)$, $B(2 ; 0)$, $C(0 ; -2)$ and $D(-3 ; -1)$.

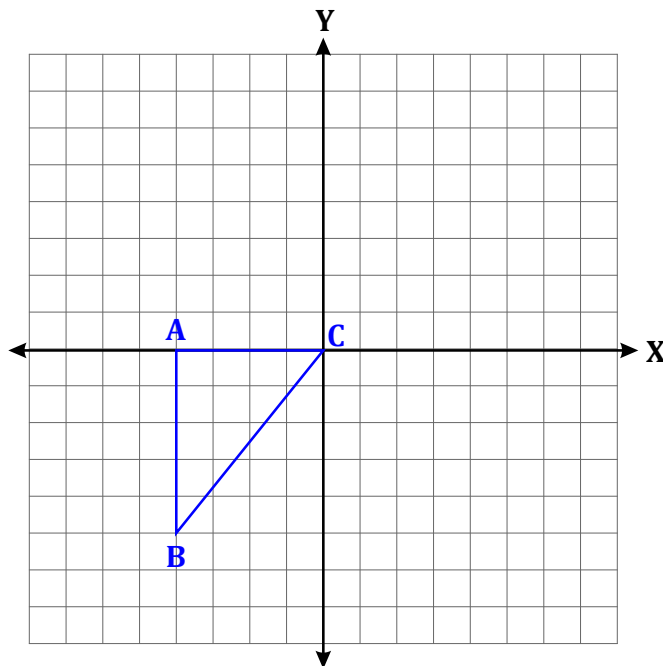


- (b) Enlarge quadrilateral ABCD with factor 2 and draw it in on the graph.
Write down the coordinates of the enlargement.

- (c) Write down the coordinates of the reflection of quadrilateral ABCD in the x -axis, without drawing the reflection in on the graph.

- (d) Will quadrilateral ABCD and quadrilateral $A'B'C'D'$ be congruent or similar?

(2) Consider the graph:



- (a) Write down the coordinates of A, B and C.

- (b) $\Delta ABC \rightarrow \Delta A'B'C'$ as a rotation of 90° clockwise around the origin.

(i) Draw $\Delta A'B'C'$ in on the graph.

- (ii) Write down the coordinates of $\Delta A'B'C'$.

- (c) $\Delta ABC \rightarrow \Delta A''B''C''$ as the following translation: 2 right and 4 upwards

(i) Draw $\Delta A''B''C''$ in on the graph.

- (ii) Write down the coordinates of $\Delta A''B''C''$.

- (d) Will $\Delta A'B'C' \rightarrow \Delta A''B''C''$ represent a transformation? If so, write the transformation in words.

(3) Describe the following transformations:

(a) $(8 ; 32) \rightarrow (2 ; 8)$ _____

(b) $(1 ; -4) \rightarrow (1 ; 4)$ _____

(c) $(-5 ; 2) \rightarrow (5 ; -2)$ _____

(d) $(3 ; -1) \rightarrow (5 ; -6)$ _____