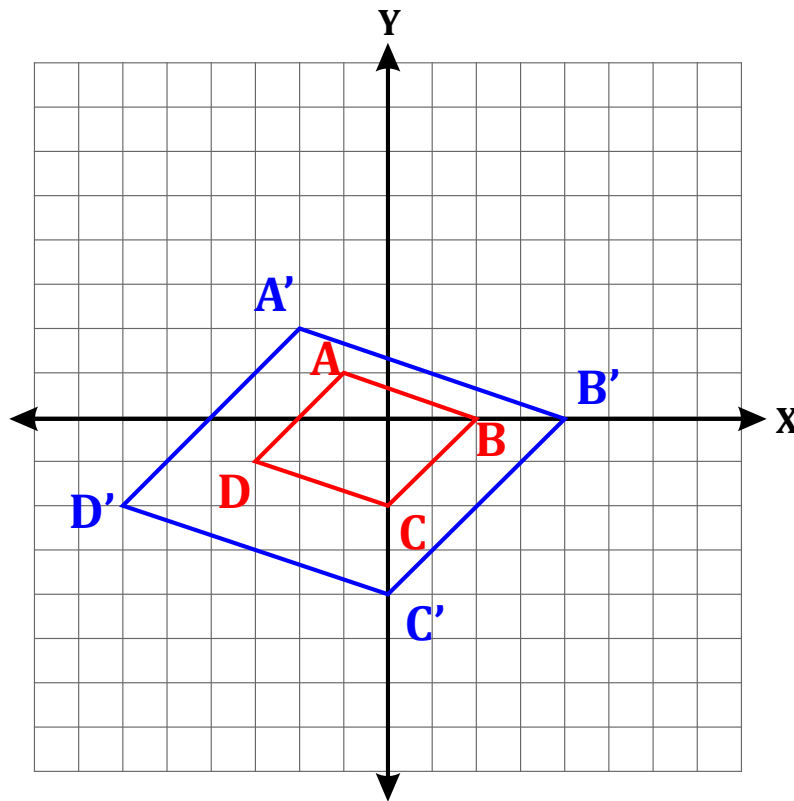


- (1) (a) Draw **quadrilateral ABCD** with $A(-1 ; 1)$, $B(2 ; 0)$, $C(0 ; -2)$ and $D(-3 ; -1)$.



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

$A'(-2 ; 2)$; $B'(4 ; 0)$; $C'(0 ; -4)$ and $D'(-6 ; -2)$

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

$A''(-1 ; -1)$; $B''(2 ; 0)$; $C''(0 ; 2)$ and $D''(-3 ; 1)$

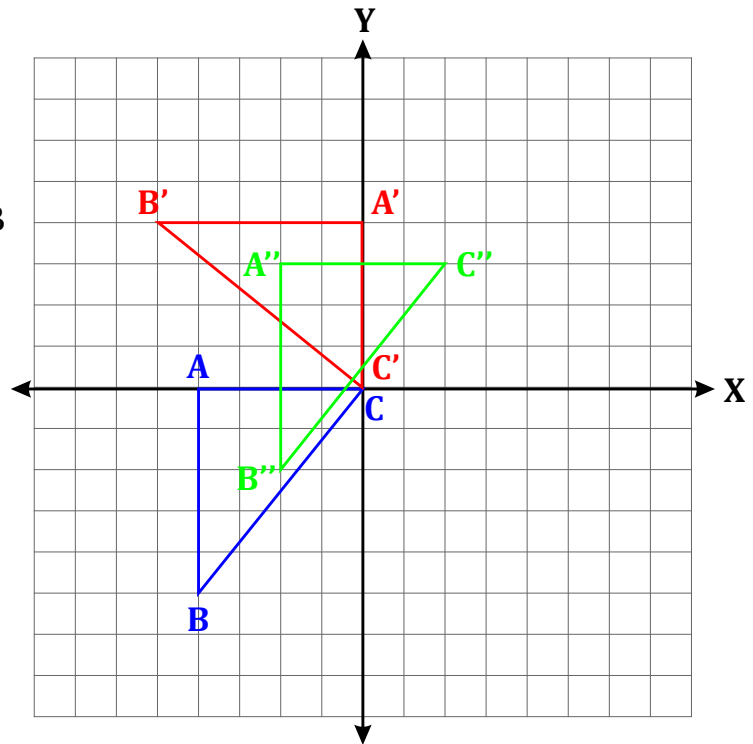
- (d) Will quadrilateral ABCD and quadrilateral $A'B'C'D'$ be congruent or similar?

Similar

(2) Consider the graph:

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

**A(-4 ; 0) ; B(-4 ; -5) ;
C(0 ; 0)**



- (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 $\Delta A'B'C'$.

A'(0 ; 4) ; B'(-5 ; 4) ; C'(0 ; 0)

- (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 $\Delta A''B''C''$.

A''(-2 ; 3) ; B''(-2 ; -2) ; C''(2 ; 3)

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

No transformation

(3) Describe the following transformations:

(a) $(8 ; 32) \rightarrow (2 ; 8) \Leftrightarrow$ **Reduction with factor 2.**

(b) $(1 ; -4) \rightarrow (1 ; 4) \Leftrightarrow$ **Reflection in the x-axis.**

(c) $(-5 ; 2) \rightarrow (5 ; -2) \Leftrightarrow$ **Rotation of 180° around the origin.**

(d) $(3 ; -1) \rightarrow (5 ; -6) \Leftrightarrow$ **Translation of 2 right and 5 downwards.**