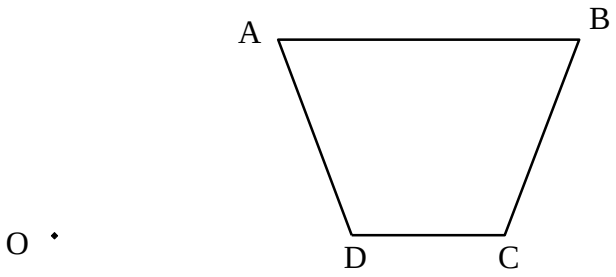
Secondary 2 Math : Dilatations

Name:_____

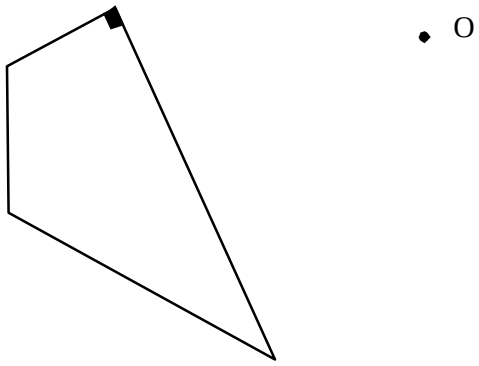
1 Draw the image A'B'C'D' of figure ABCD using the centre O and a ratio of $\frac{1}{2}$.

Ratio of similarity: $\frac{1}{2}$

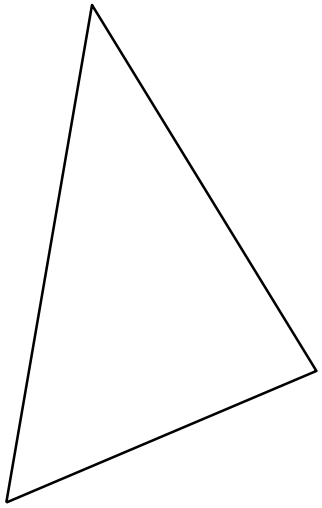


2 Draw the image of the given figure under dilatation with centre 0 and a scale factor of 1.5.

Show all your construction marks.

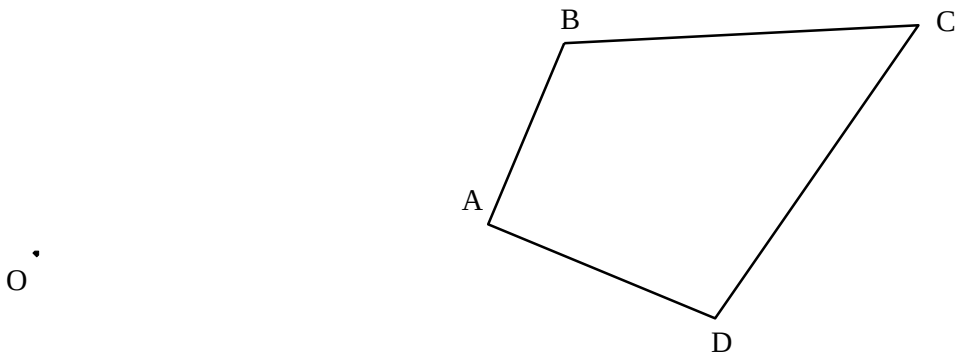


3 Construct the image of the figure below according to the following transformation rule: dilatation of $\frac{1}{4}$ with centre O.

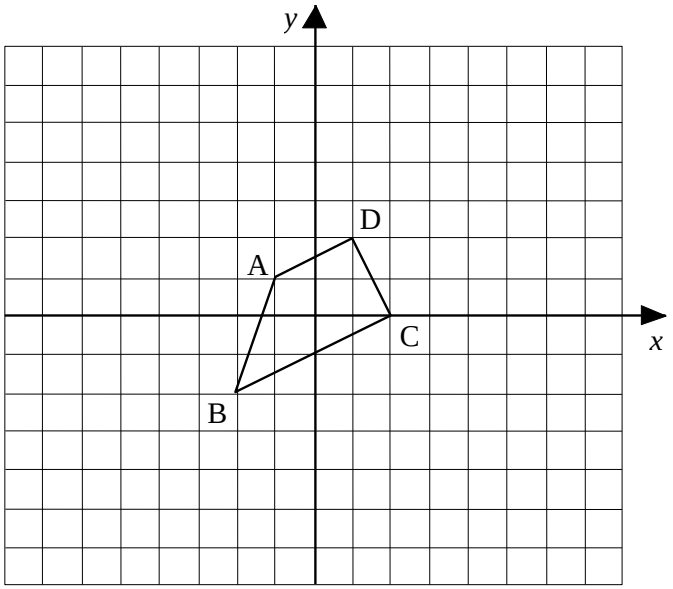


4 Draw the image of quadrilateral ABCD using a similarity transformation with center O and a ratio of $\frac{2}{3}$.

Ratio of similarity : $\frac{2}{3}$

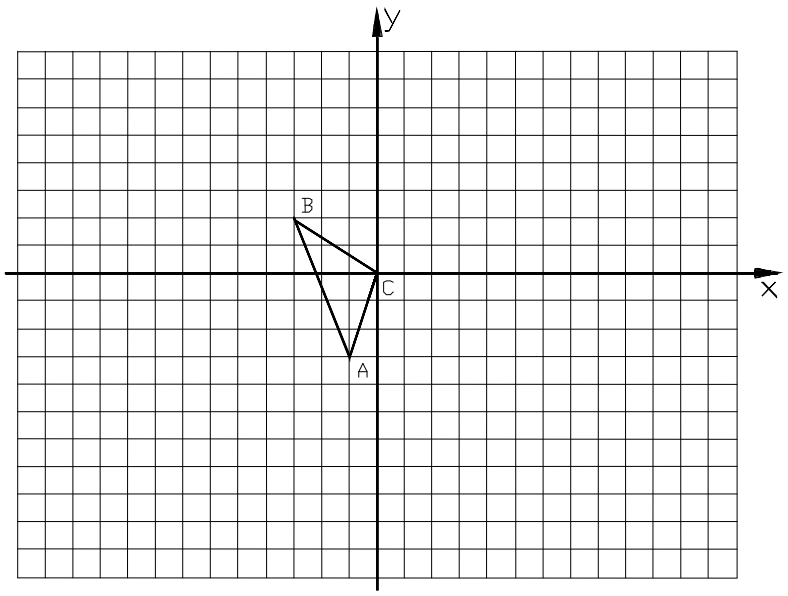


5 Quadrilateral ABCD is represented in the Cartesian plane below. Draw quadrilateral A'B'C'D', the dilatation image of ABCD, if the scale factor is 3, using the origin as the point of dilatation.



6 Jim wants to change the dimensions of his rock garden represented in the Cartesian plane below.

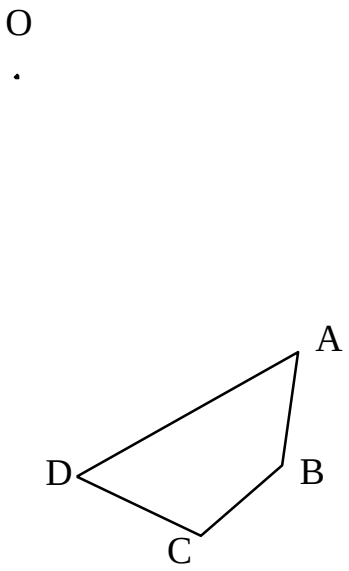
Draw the new figure using the scale factor of 3.



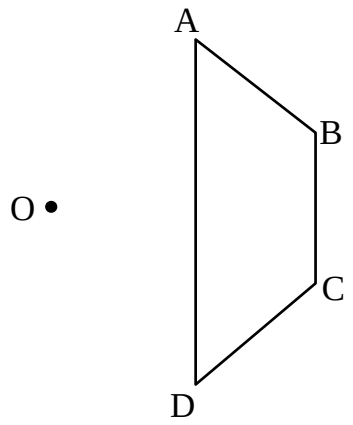
7 Draw the image of quadrilateral ABCD that is the result of a dilatation about centre O and a scale factor of 1.5.

Show all your work.

Construction: dilatation about centre O, scale factor 1.5

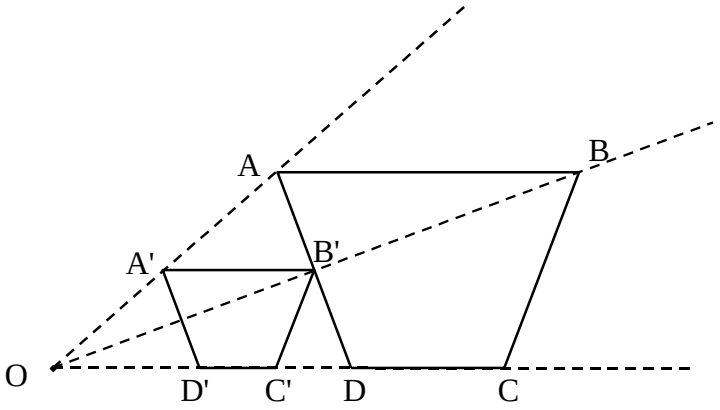


8 Draw the image of trapezoid ABCD using a dilatation (similarity transformation) about center O and a scale factor of $\frac{8}{5}$. Label the vertices.



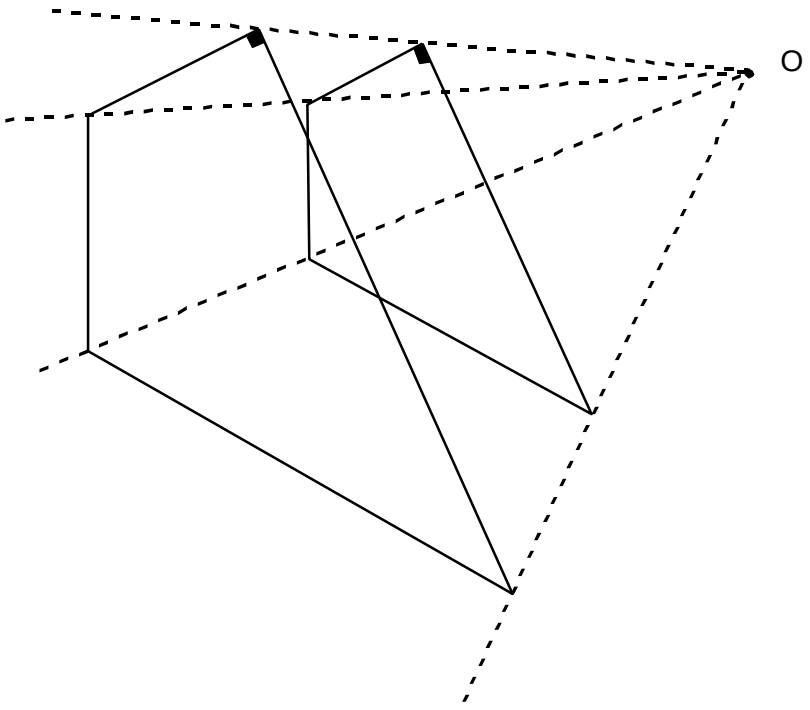
DILATIONS - ANSWER KEY:

1



Acceptable margin of error: ± 2 mm.

2



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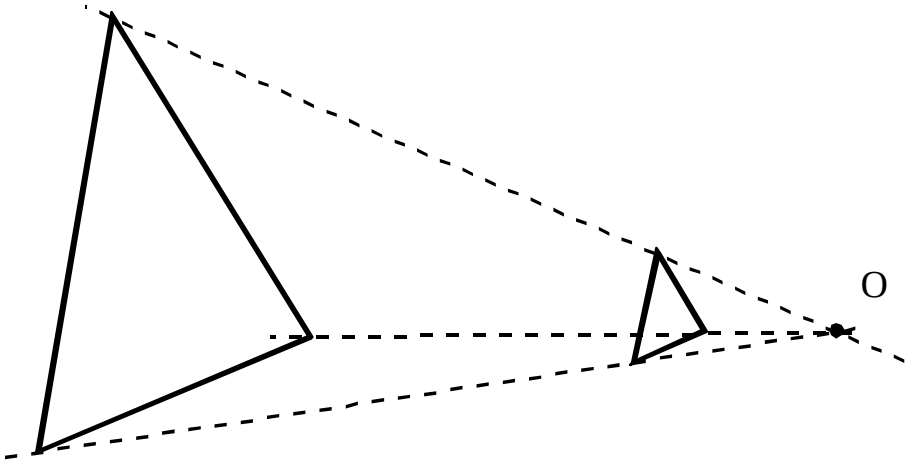

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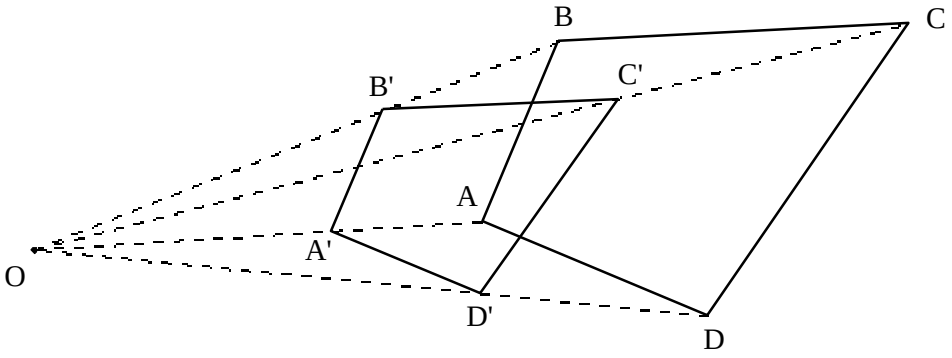

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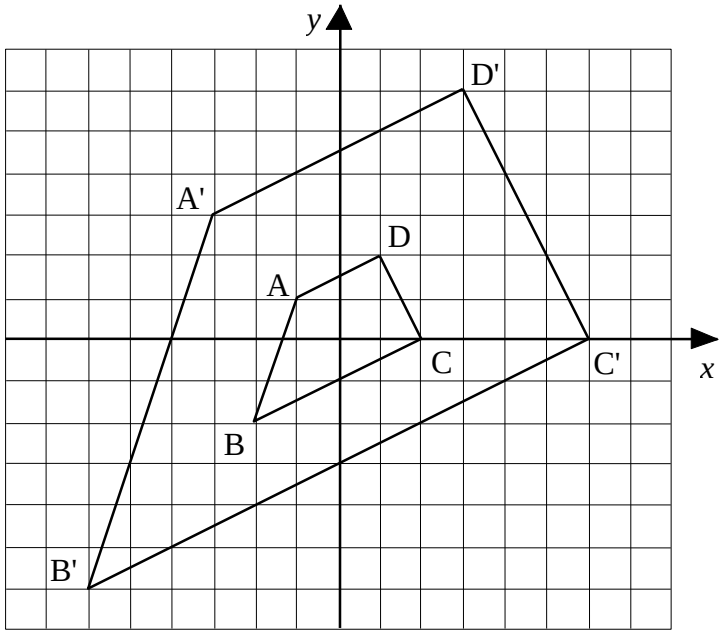

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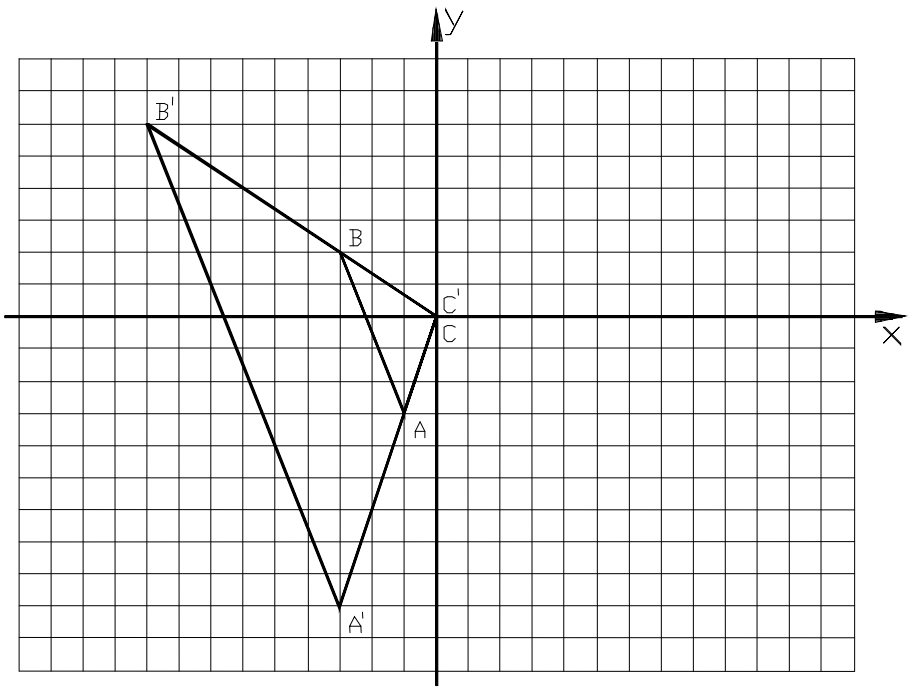

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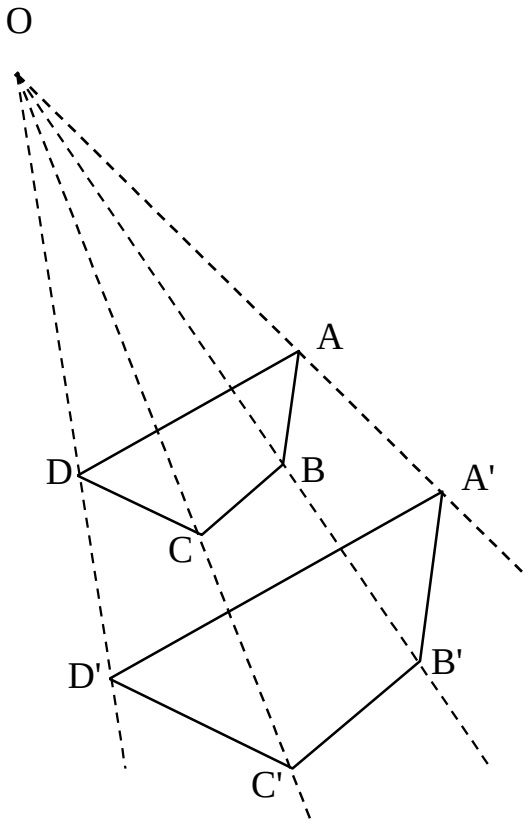

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