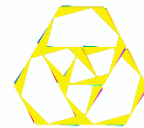




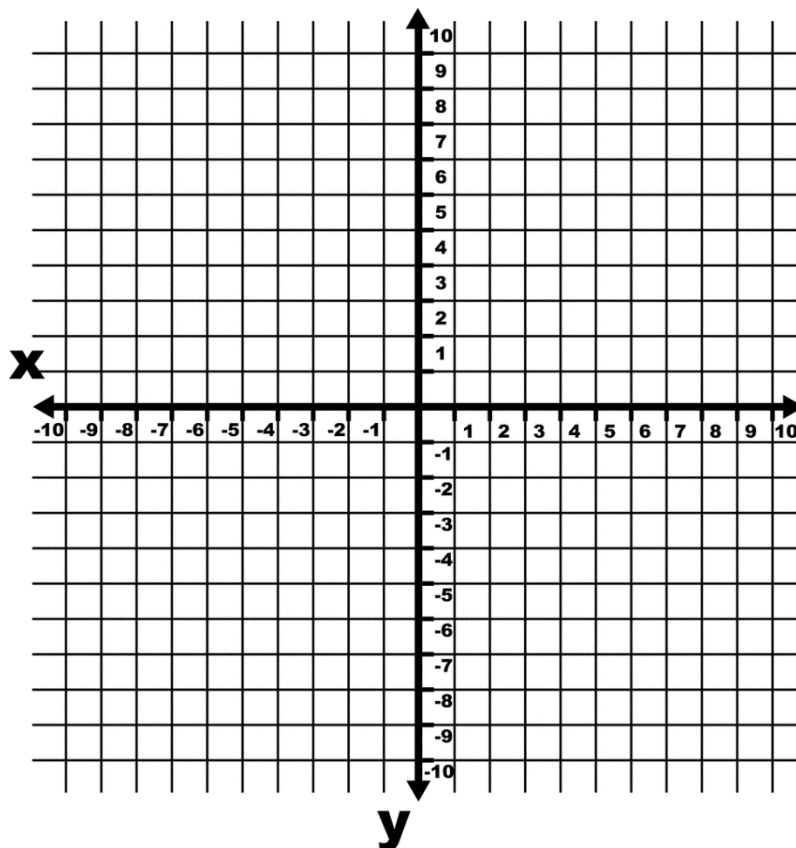
Grade 9 - Mathematics

Transformation Geometry 6



Activity

1. The vertices of ΔUVW are $U(8; 2)$, $V(2, 8)$ and $W(8; 8)$
 - a. Plot ΔUVW .

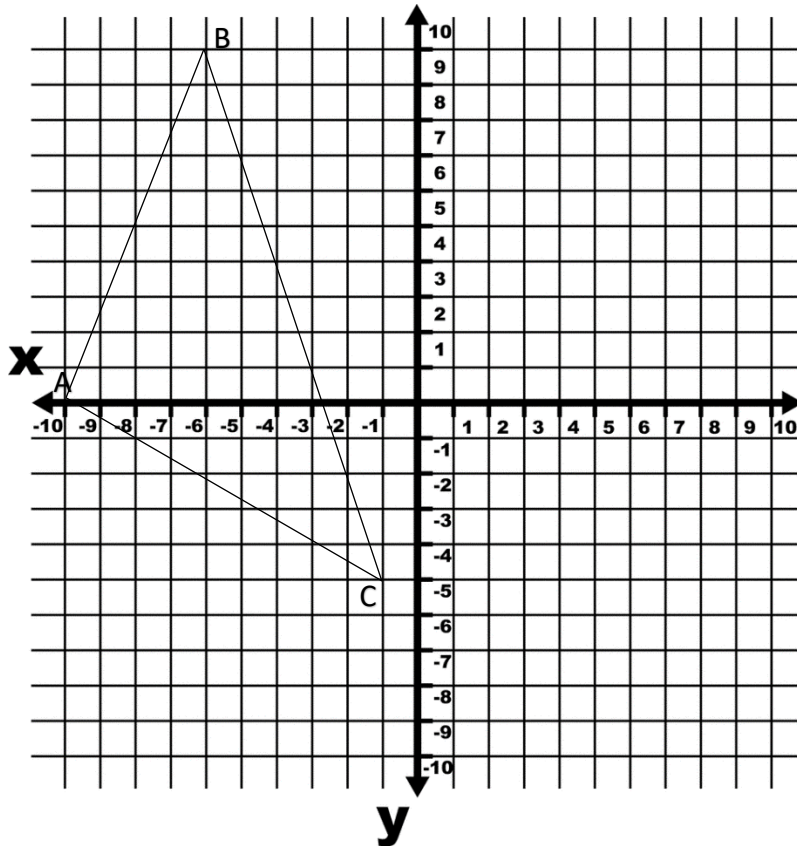


- b. ΔUVW is reduced through the point of origin by a scale factor of 2 to give $\Delta U^1V^1W^1$. Calculate the co-ordinates of the vertices of $\Delta U^1V^1W^1$.

- c. Plot and label the image.
- d. Without calculating the lengths of any sides, give the value of
$$\frac{\text{The perimeter of } \Delta L^1M^1N^1}{\text{The perimeter of } \Delta LMN}$$



2. On the cartesian plane below, $\triangle ABC$ has been plotted.



a. Record the vertices in $\triangle ABC$.

b. $\triangle ABC$ is reduced through the point of origin by a scale factor of 2, to give the image $\triangle A^1B^1C^1$. Record the new co-ordinates for the image.

c. Plot $\triangle A^1B^1C^1$.

d. Write the rule for creating image $\triangle A^1B^1C^1$ from $\triangle ABC$.
