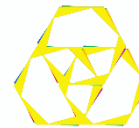




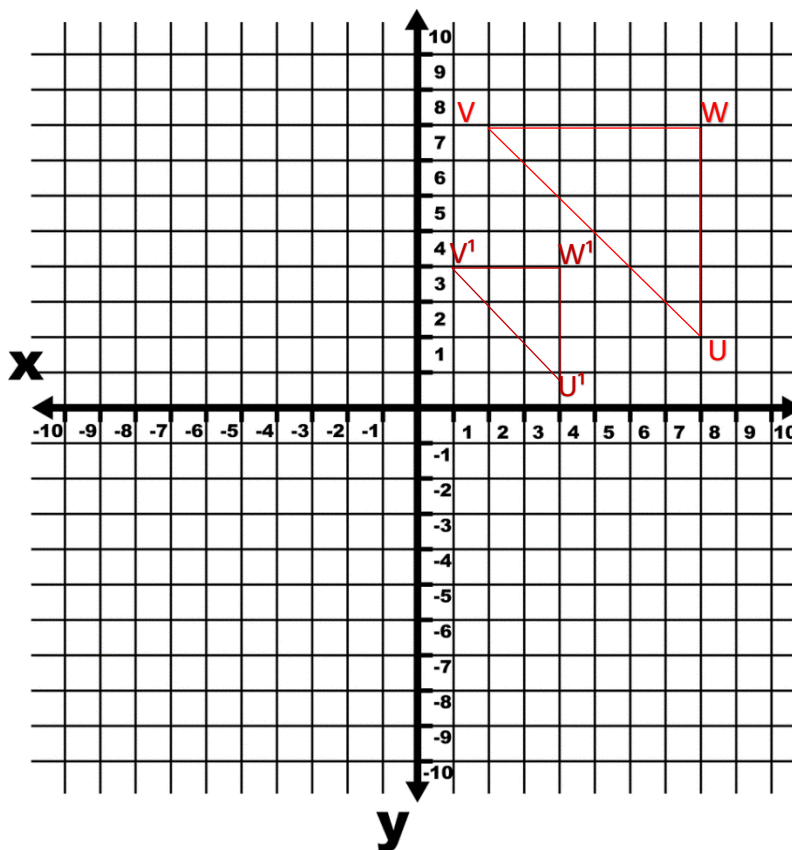
Grade 9 - Mathematics

Transformation Geometry 6



Memo

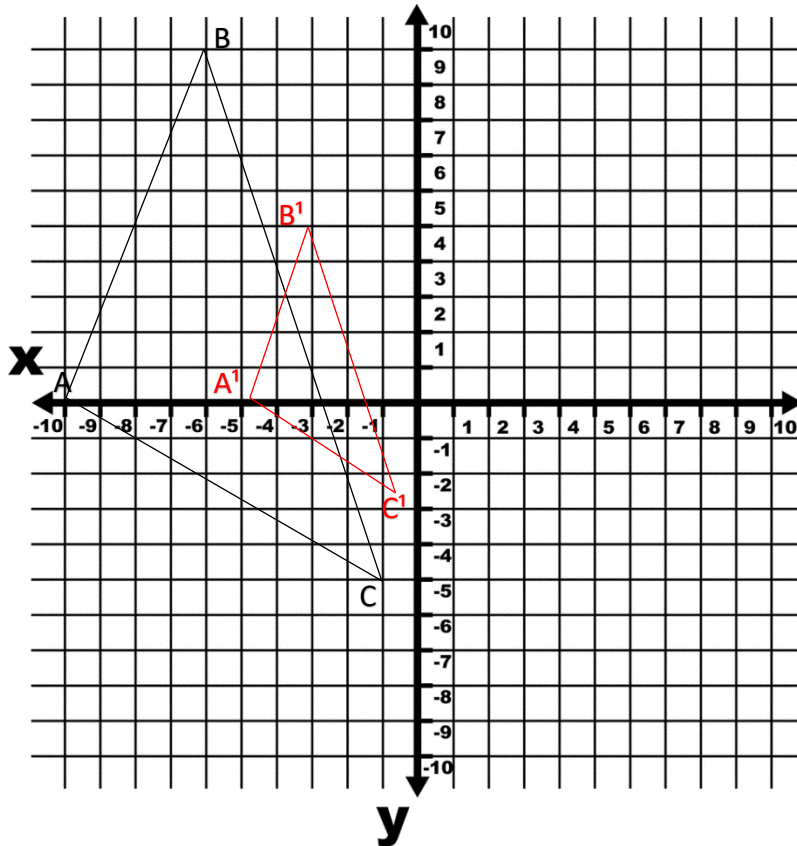
- The vertices of ΔUVW are $U(8; 2)$, $V(2, 8)$ and $W(8; 8)$
 - Plot ΔUVW .



- ΔUVW is reduced through the point of origin by a scale factor of 2 to give $\Delta U'V'W'$. Calculate the co-ordinates of the vertices of $\Delta U'V'W'$.
 $U'(4; 1), V'(1; 4), W'(4; 4)$.
- Plot and label the image.
- Without calculating the lengths of any sides, give the value of $\frac{\text{The perimeter of } \Delta U'V'W'}{\text{The perimeter of } \Delta UVW} = k = 2$



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



- Record the vertices in $\triangle ABC$.
 $A(0; -10), B(-6; 10); C(-1; -5)$
- $\triangle ABC$ is reduced through the point of origin by a scale factor of 2, to give the image $\triangle A'B'C'$. Record the new co-ordinates for the image.
 $A'(0; -5), B'(-3; 5), C'(-0,5; -2,5)$
- Plot $\triangle A'B'C'$.
- Write the rule for creating image $\triangle A'B'C'$ from $\triangle ABC$.
 $(x; y) \rightarrow \frac{1}{2}(x; y)$