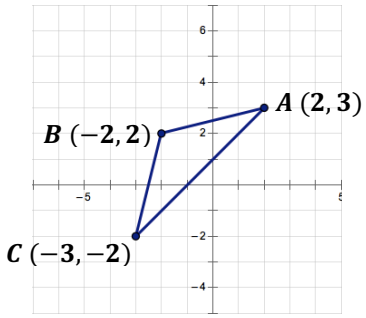
Dilate the figure by a scale factor of 2 with a center of dilation at the origin.



Jaxon's "Multiply the X-Values" Method

To dilate the figure by a factor of 2, I will multiply the x-value of each point by 2.

$A\ (2, 3)$
$2 * 2 = 4$

$A'(4, 3)$

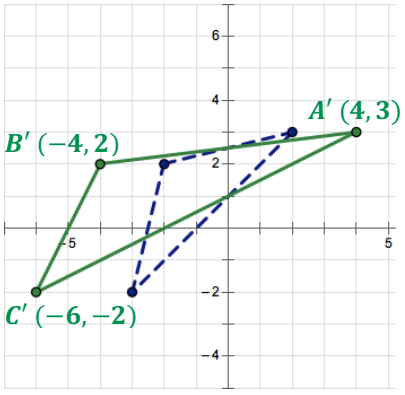
$B\ (-2, 2)$
$-2 * 2 = -4$

$B'(-4, 2)$

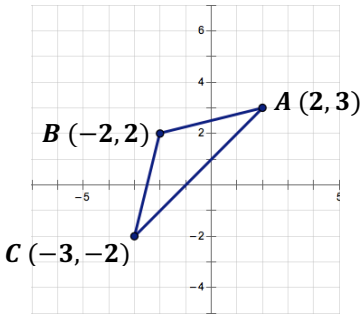
$C\ (-3, -2)$
$-3 * 2 = -6$

$C'(-6, -2)$

I plotted all the new points to find the new triangle.



Dilate the figure by a scale factor of 2 with a center of dilation at the origin.



Maxine's "Multiply the X & Y-Values" Method

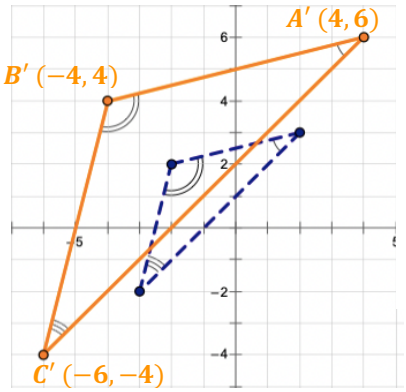
$A\ (2,3)$
$2 * 2 = 4$
$3 * 2 = 6$
$A'(4,6)$

$B\ (-2,2)$
$-2 * 2 = -4$
$2 * 2 = 4$
$B'(-4,4)$

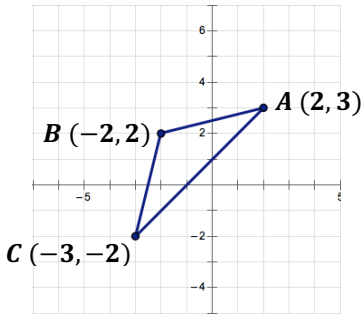
$C\ (-3,-2)$
$-3 * 2 = -6$
$-2 * 2 = -4$
$C'(-6,-4)$

To dilate the figure by a factor of 2, I will multiply the x and y-value of each point by 2.

I plotted all the new points to find the new triangle.



Dilate the figure by a scale factor of 2 with a center of dilation at the origin.



Jaxon's "Multiply the X-Values" Method

To dilate the figure by a factor of 2, I will multiply the x-value of each point by 2.

$A\ (2, 3)$
$2 * 2 = 4$

$A'(4, 3)$

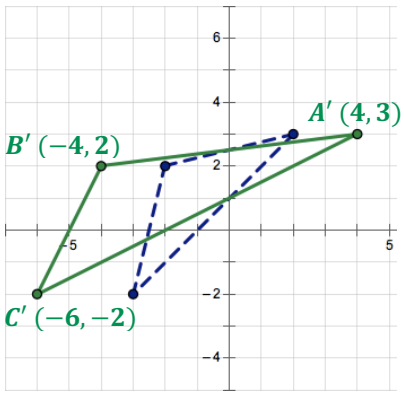
$B\ (-2, 2)$
$-2 * 2 = -4$

$B'(-4, 2)$

$C\ (-3, -2)$
$-3 * 2 = -6$

$C'(-6, -2)$

I plotted all the new points to find the new triangle.



Maxine's "Multiply the X & Y-Values" Method

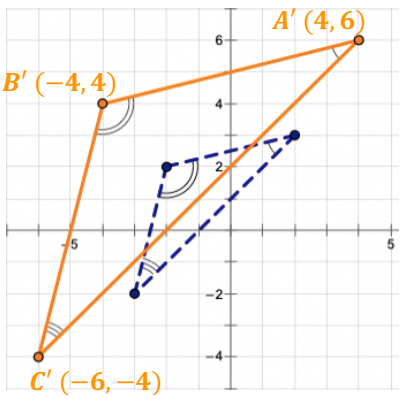
$A\ (2, 3)$
$2 * 2 = 4$
$3 * 2 = 6$
$A'(4, 6)$

$B\ (-2, 2)$
$-2 * 2 = -4$
$2 * 2 = 4$
$B'(-4, 4)$

$C\ (-3, -2)$
$-3 * 2 = -6$
$-2 * 2 = -4$
$C'(-6, -4)$

To dilate the figure by a factor of 2, I will multiply the x and y-value of each point by 2.

I plotted all the new points to find the new triangle.

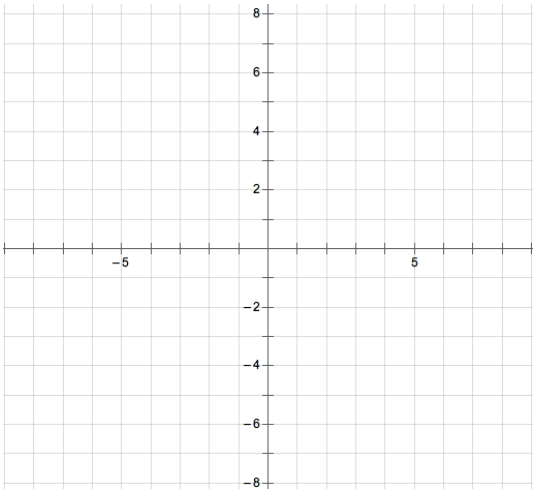


1) What are the similarities and differences between Jaxon and Maxine's methods?

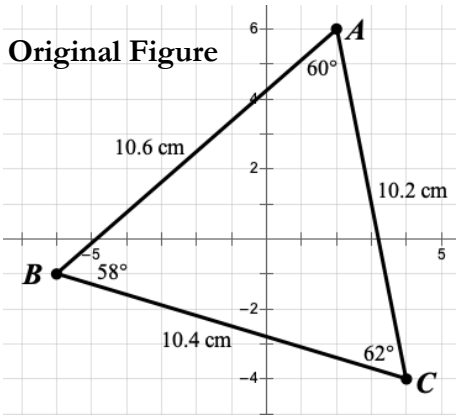
Similarities	Differences

2) Who do you think dilated the figure correctly? Explain.

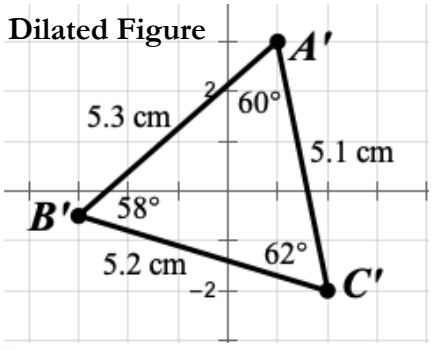
3) Triangle ABC has coordinates $A\ (-4,-4), B(-3,2)$ and $C\ (2,1)$. Dilate triangle ABC by a scale factor of ½. Draw and label the coordinates of your dilated figure on the graph below.



4) a) What do you notice about the angles and sides of the dilated figure compared to the original figure?



b) Do you think this is always the case when you dilate a figure? Explain your reasoning.



Dilate the figure b… …tion at the origin.

Jaxon's method didn't work because his transformation didn't even make a similar triangle.

When you dilate a figure, you have to multiply both the x and y values by the same scale factor! This preserves the angle measures and makes the sides proportional.

…Y-Values" Method

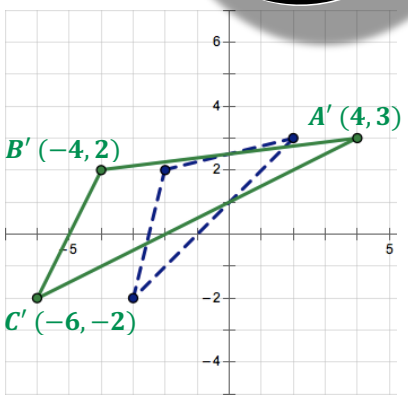
…To dilate the …ure by a factor …2, I will multiply … x and y-value of …ach point by 2.

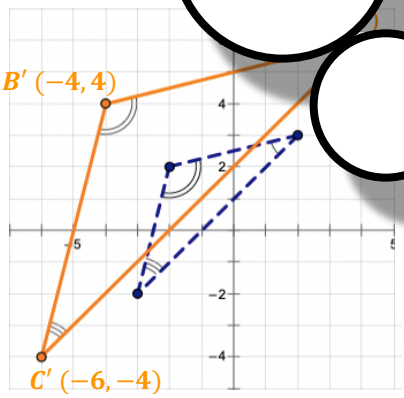
$C'($

$-2 * 2 = -6$

$C'(-6$

I plotted all the new points to find the new triangle.





I plotted all the new points to find the new triangle.