New Seating Chart

Back

MATH 8 [Period 3] [A,B,C,D]


Block, Tyriq


Kliphon, Hailey


Magarrell, Kylah


Kemp, Jacob


Turnbull, Kasey


Aldrich, Emily


LaVerne, Quincy


Bigelow, Ethan


Kopera, Emily


Tejera-Johnson, Chrystia


Patel, Devanshiben


Cantrell, Myranda


Emilo, Sara

No Photo

Hanlan, Aliyah


Zinurov, Veniamin


Kupchak, Tatyana

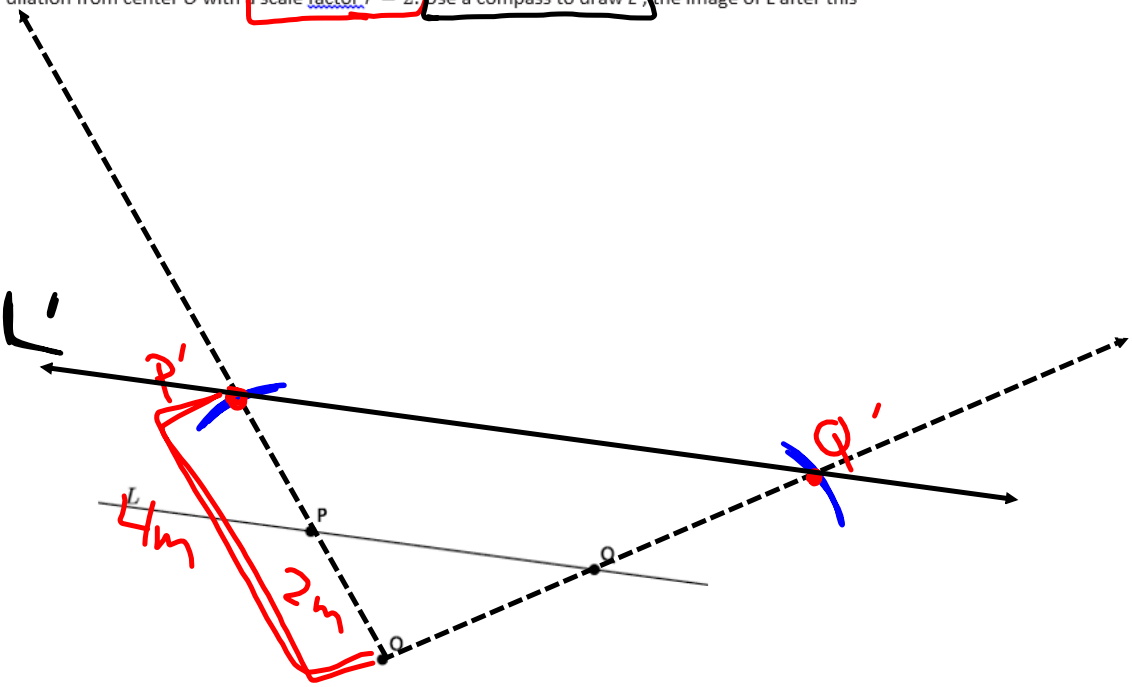

Chafee III, William

Front

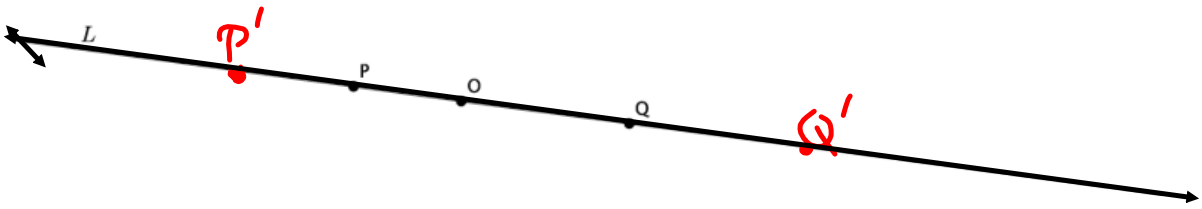
Classwork

Examples 1–2: Dilations Map Lines to Lines

Let there be a dilation from center O with a scale factor $r = 2$. Use a compass to draw L', the image of L after this dilation.



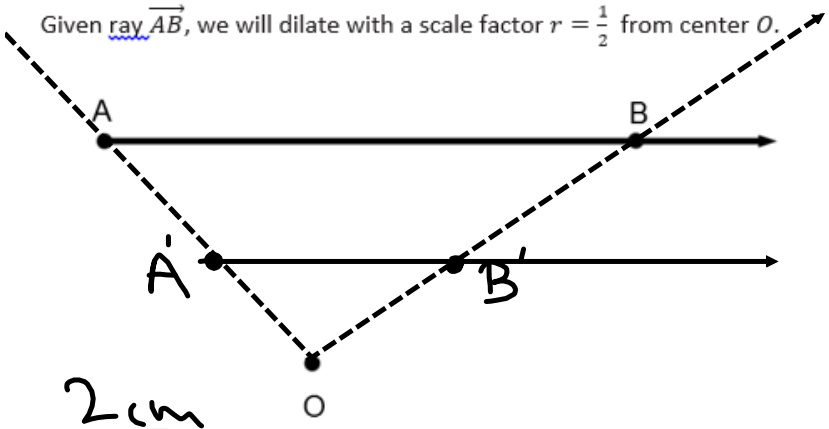
Example 2: Dilations Map Lines to Lines



Conclusion 1: Dilations map lines to lines.

Example 3: Dilations Map Rays to Rays

Given ray $\overrightarrow{AB}$, we will dilate with a scale factor $r = \frac{1}{2}$ from center O.



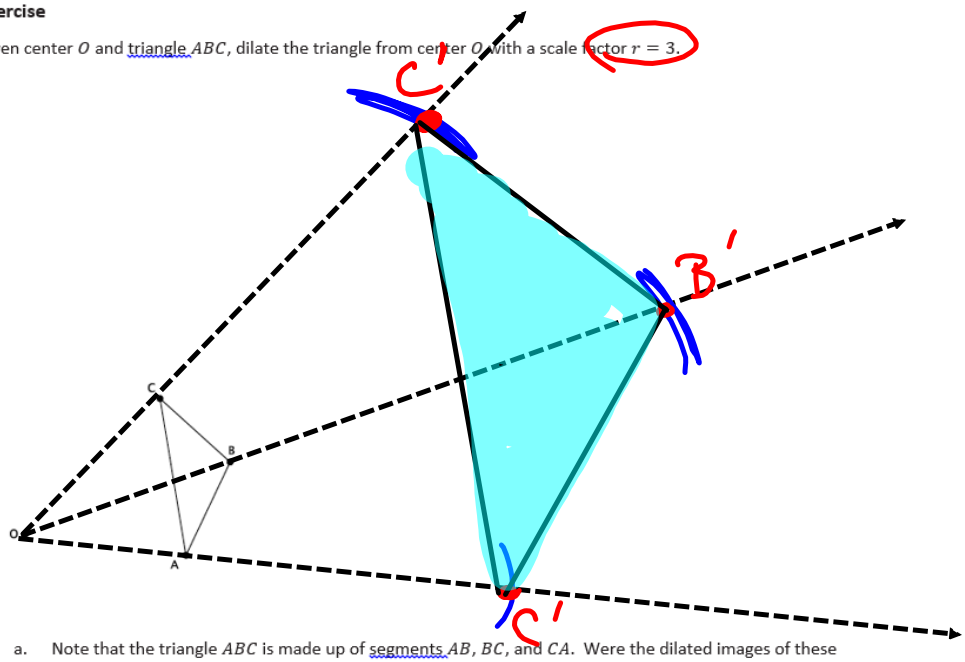
2 cm
2)4

2.6
2)5.2
4
1.2

Conclusion 2: Dilations map rays to rays.

Exercise

Given center O and triangle ABC, dilate the triangle from center O with a scale factor $r = 3$.



a. Note that the triangle ABC is made up of segments AB, BC, and CA. Were the dilated images of these segments still segments?

Yes, they were!

Conclusion 3: Dilations maps segments to segments.

b. Measure the length of the segments AB and $A'B'$. What do you notice? (Think about the definition of dilation.)

AB = 2cm A'B' = 6cm

A'B' is 3 times bigger than AB because r = 3.

c. Verify the claim you made in part (b) by measuring and comparing the lengths of segments BC and $B'C'$ and segments CA and $C'A'$. What does this mean in terms of the segments formed between dilated points?

BC = 1.7cm B'C' = 5.1cm CA = 3cm C'A' = 9cm

d. Measure $\angle ABC$ and $\angle A'B'C'$. What do you notice?

$\angle ABC = 95$ $\angle A'B'C' = 95$

Conclusion 4: Dilations maps angles to angles of the same size!.

e. Verify the claim you made in part (d) by measuring and comparing $\angle BCA$ and $\angle B'C'A'$ and $\angle CAB$ and $\angle C'A'B'$. What does that mean in terms of dilations with respect to angles and their degrees?