Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Sect \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

M3 L4 HW

1. Caleb sketched the following diagram on graph paper. He dilated points $B$ and $C$ from center $O$.



* 1. What is the scale factor $r$? Show your work.
	2. Verify the scale factor with a different set of segments.
	3. Which segments are parallel? How do you know?
	4. Which angles are equal in measure? How do you know?
1. Points $B$ and $C$ were dilated from center $O$.



* 1. What is the scale factor $r$? Show your work.
	2. If $\left|OB\right|=5$, what is $\left|OB^{'}\right|$?
	3. How does the perimeter of triangle $OBC$ compare to the perimeter of triangle $OB'C'$?
	4. Did the perimeter of triangle $OB'C'=r×($perimeter of triangle $OBC)$? Explain.