GEOMETRY REVIEW
QUIZ 2: MODULE 2 LESSONS 1-7

- Create a scale drawing of a figure given a scale factor using
  o Construction Method (Lesson 1)
  o Ratio Method (Lesson 2) or Parallel Method (Lesson 3)
- Understand and be able to use the properties of the *Triangle Side Splitter Theorem* (Lesson 4) and the *Dilation Theorem* (Lesson 5 and 7).
- Understand scale factors. (Lesson 5)
- Understand the similarities and differences between Dilations and Basic Rigid Motions: Reflections, Rotation, and Translations. (Lesson 6)
- Understand inverse motions of transformations. (Lesson 6)

PRACTICE

1. Create a scale drawing of the figure below using the construction method with $r = \frac{1}{2}$. Label the scaled figure.

![Triangle drawing](image1)

2. Create a scale drawing of the figure below using the ratio or parallel method about center $O$ with scale factor 3.

![Polygon drawing](image2)
3. Given $UV = 2, VX = 1.5, UW = 6, WY = 4.5$ and $VW = 5.5$, find $XY$.

4. Determine the scale factor for each of the following.
   a. 
   b. 

5. Write the inverse transformation for the following.
   a. $R_{c,80^\circ}$ clockwise
   b. $D_{O,\frac{5}{4}}$
6. Let \( \overline{AB} \) be a dilation of \( \overline{CD} \).
   a. Find the center of dilation, \( O \).
   b. Make three conclusions about the image of \( \overline{CD} \).

   ![Diagram](image)

   **ANSWERS**

   1. Review in class
   2. Review in class
   3. \( XY = 9.625 \)
   4. a. 2   b. \( \frac{1}{3} \)
   5. a. Rotation of 80° counter-clockwise   b. Dilation with scale factor of \( \frac{4}{5} \)
   6. a. Review in class

   b. Any of the following conclusions are acceptable.

   - \( \overline{CD} \parallel \overline{AB} \)
   - \( AB = \frac{1}{2} CD; \ OA = \frac{1}{2} OC; \ OB = \frac{1}{2} OD \)
   - \( \frac{AB}{CD} = \frac{OA}{OC} = \frac{OB}{OD} = \frac{1}{2} \)
   - \( \overline{AB} \) is the side splitter of \( \triangle COD \). It splits the sides of \( \triangle COD \) proportionally.

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