Lesson 4: Fundamental Theorem of Similarity (FTS)

Classwork

Exercise

In the diagram below, points $R$ and $S$ have been dilated from center $O$ by a scale factor of $r = 3$.

a. If $|OR| = 2.3$ cm, what is $|OR'|$?

b. If $|OS| = 3.5$ cm, what is $|OS'|$?
c. Connect the point $R$ to the point $S$ and the point $R'$ to the point $S'$. What do you know about the lines that contain segments $RS$ and $R'S'$?

d. What is the relationship between the length of segment $RS$ and the length of segment $R'S'$?

e. Identify pairs of angles that are equal in measure. How do you know they are equal?