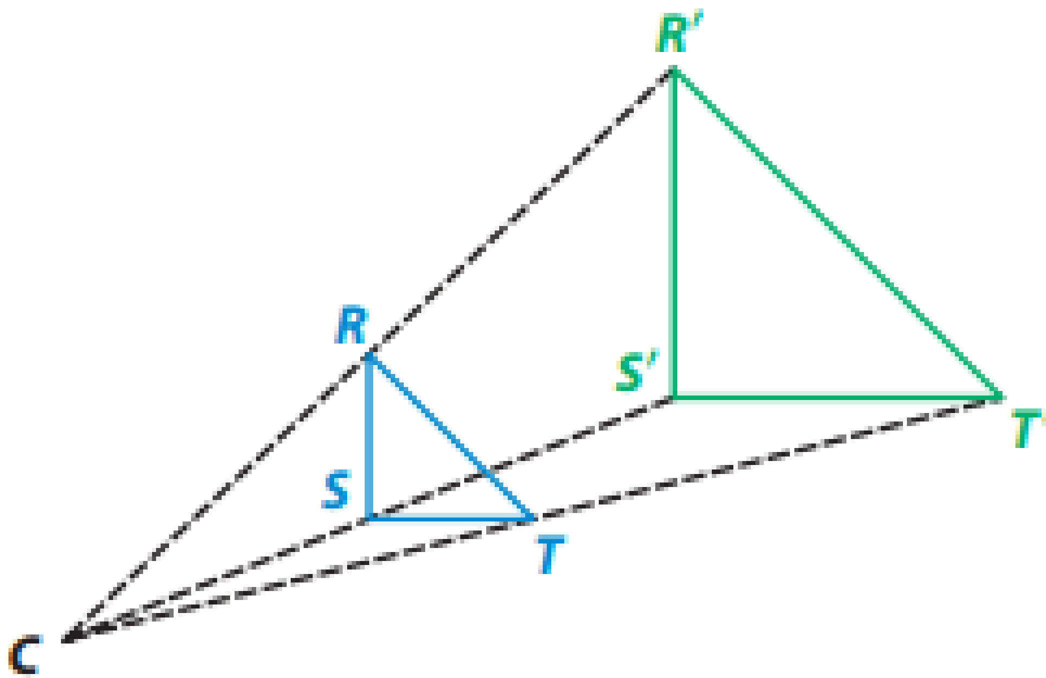
Name: ____ Date: ____________ Period: _____



1) Fill in the following information:

Center of Dilation: ____________ Image: ____________ Preimage: ____________

2) Use a ruler to measure each of the line segments to the nearest centimeter:

$\overline{RS} =$

$\overline{R'S'} =$

$\overline{ST} =$

$\overline{S'T'} =$

$\overline{RT} =$

$\overline{R'T'} =$

3) Now use your answers to find the following RATIOS: (SIMPLIFY EACH FRACTION!)

$\frac{\overline{R'S'}}{\overline{RS}} =$

$\frac{\overline{S'T'}}{\overline{ST}} =$

$\frac{\overline{R'T'}}{\overline{RT}} =$

4) Use a protractor to measure each of the angles:

$m\angle RST =$

$m\angle R'S'T' =$

$m\angle STR =$

$m\angle S'T'R' =$

$m\angle TRS =$

$m\angle T'R'S' =$

5) Based on the information you found in PART 3, what can you conclude about the ratios of corresponding sides?

6) Based on the information you found in PART 4, what can you conclude about the measures of corresponding angles?

Let's see if we can draw some conclusions:

Notice that all the ratios in part 3 were found by using the $\dfrac{\text{IMAGE}}{\text{PREIMAGE}}$

7) You found that the ratios of corresponding sides were ________________________________ .

8) When two fractions are equivalent, we say that they are ________________________________.

9) You have now discovered that the ratios of corresponding sides are ______________________ and the measures of corresponding angles are ______________________________________ .

10) We can now conclude that $\triangle RST$ and $\triangle R'S'T'$ are ____________________________________.

11) Each line segment in the image is _____ times its corresponding line segment in the preimage.

12) Recall that the ratio used to enlarge or reduce similar figures is called the __________________.

13) The dilation of $\triangle RST$ to $\triangle R'S'T'$ uses a ______________________ of _______.