

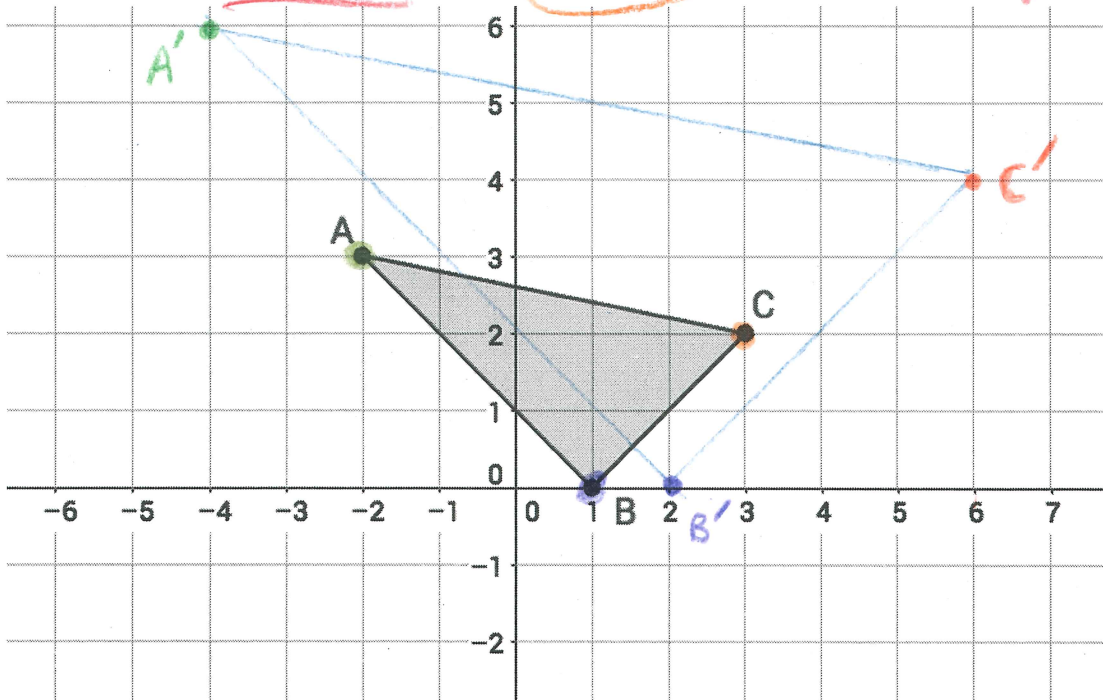
SRT-A1

Practice Assessment

Solutions

1. Dilate $\triangle ABC$ about the origin with scale factor 2 to create $\triangle A'B'C'$.

$(x, y) \rightarrow (2x, 2y)$



$A(-2, 3) \xrightarrow{\times 2} (-4, 6) A'$
 $B(1, 0) \xrightarrow{\times 2} (2, 0) B'$
 $C(3, 2) \xrightarrow{\times 2} (6, 4) C'$

2. $\triangle ABC$ above has an area of 6 square units. What is the area of $\triangle A'B'C'$ after the dilation of factor 2?

Linear Scale: 2

Area Scale: $2^2 = 4$

$6 \times 4 = 24 \text{ sq. units}$

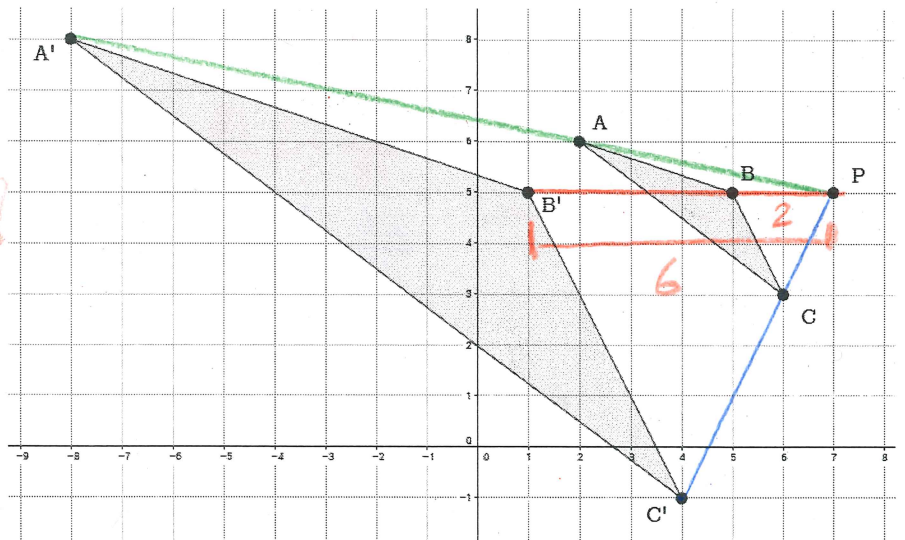
Linear Scale

SRT-A1b

3. $\triangle A'B'C'$ is a dilation of $\triangle ABC$ with center of dilation P as shown. What is the scale factor of this dilation?

(Connect corresponding vertices, count length units on grid)

$B'P = 6$
 $BP = 2$
 $\frac{6}{2} = 3$



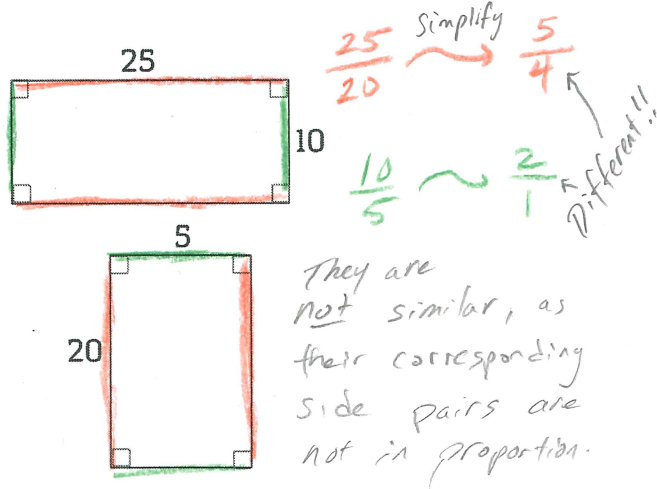
CO-A2B

4. Explain how a dilation is different than a rotation. Be specific.

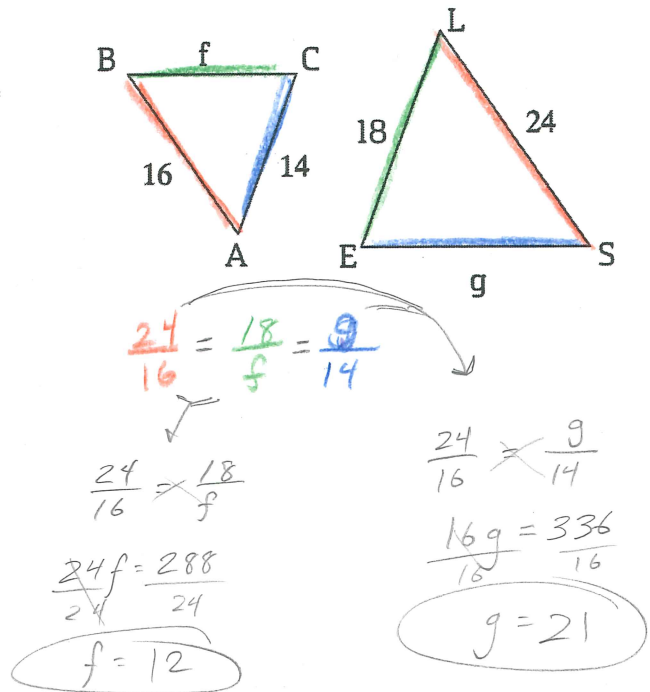
Rotation involves a point and an angle of rotation. It creates congruent figures.
 Dilation also involves a point, but with a scale factor. It creates similar, not congruent figures. Same angles, different lengths.

SRT-A2a

5. Are the figures below similar? Explain why or why not and give numerical justification.



6. Given $\triangle ABC \sim \triangle SLE$. Find the values of f and g .



SRT-A3

In each pair below, explain why the triangles are similar. Then, complete the similarity statement.

