

Dilations about a point.

method

- ① Scaling the distance. $SF = \frac{1}{2}$
- S) up 2, over 8 \rightarrow up 1, over 4.
- u) over 8 \rightarrow over 4.
- T) over 10 \rightarrow over 5.

- ② Algebraic:
- Step 1: Translate Center: $(-6, 2)$
- Step 2: Dilate
- Step 3: Translate back.

$$S(2, 4) \rightarrow (8, 2) \rightarrow (4, 1) \rightarrow \boxed{(-2, 3)}$$

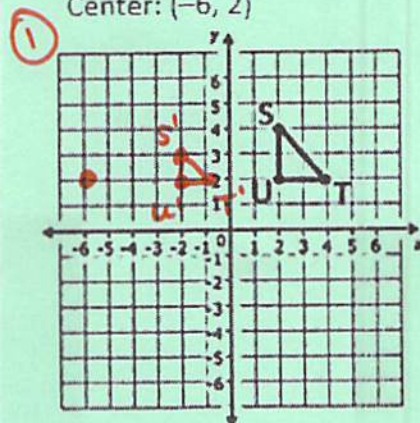
$$(x, y) \xrightarrow{\text{step 1.}} (x+6, y-2) \xrightarrow{\text{step 2.}} (\frac{1}{2}x, \frac{1}{2}y) \xrightarrow{\text{step 3.}} (x-6, y+2)$$

$$T(4, 2) \rightarrow (10, 0) \rightarrow (5, 0) \rightarrow \boxed{(-1, 2)}$$

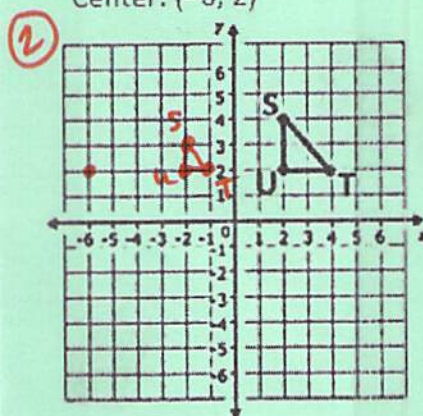
$$u(2, 2) \rightarrow (8, 0) \rightarrow (4, 0) \rightarrow (-2, 2)$$

- ③ Re-draw x & y axis.
- $S(8, 2) \rightarrow (4, 1)$
 $u(8, 0) \rightarrow (4, 0)$
 $T(10, 0) \rightarrow (5, 0)$
- } Graph on new axis
- $$(x, y) \rightarrow (\frac{1}{2}x, \frac{1}{2}y)$$

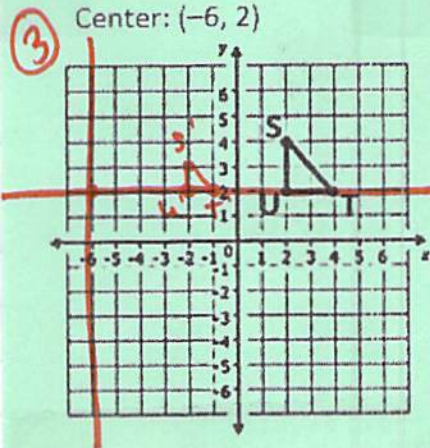
6) Scale Factor: $\frac{1}{2}$
Center: $(-6, 2)$



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1. The first part of the report is a general introduction to the subject of the study.

2. The second part of the report is a detailed description of the methods used in the study.

3. The third part of the report is a discussion of the results of the study.

4. The fourth part of the report is a conclusion and a list of references.

5. The fifth part of the report is a list of appendices.

6. The sixth part of the report is a list of tables.

7. The seventh part of the report is a list of figures.

8. The eighth part of the report is a list of abbreviations.

9. The ninth part of the report is a list of symbols.

10. The tenth part of the report is a list of footnotes.

11. The eleventh part of the report is a list of references.

12. The twelfth part of the report is a list of appendices.

13. The thirteenth part of the report is a list of tables.

14. The fourteenth part of the report is a list of figures.

15. The fifteenth part of the report is a list of abbreviations.