

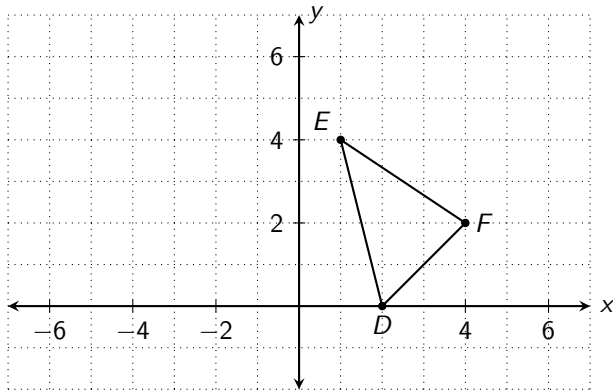
Similarity Transformations

Today I Can

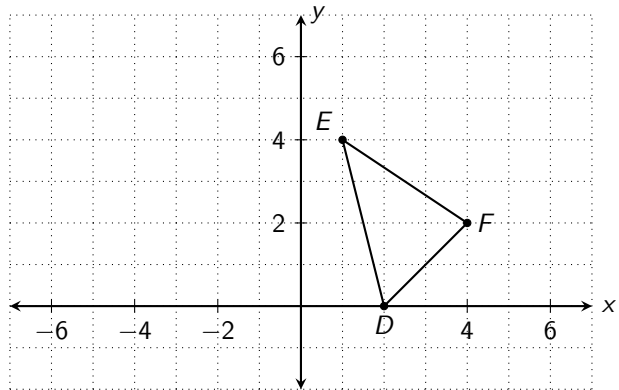
1. Identify similarity transformations and verify properties of similarity.

Example 1. $\triangle DEF$ has vertices $D(2,0)$, $E(1,4)$, and $F(4,2)$. What is the image of $\triangle DEF$ when you apply each composition?

(a) $D_{1.5} \circ R_{y\text{-axis}}$

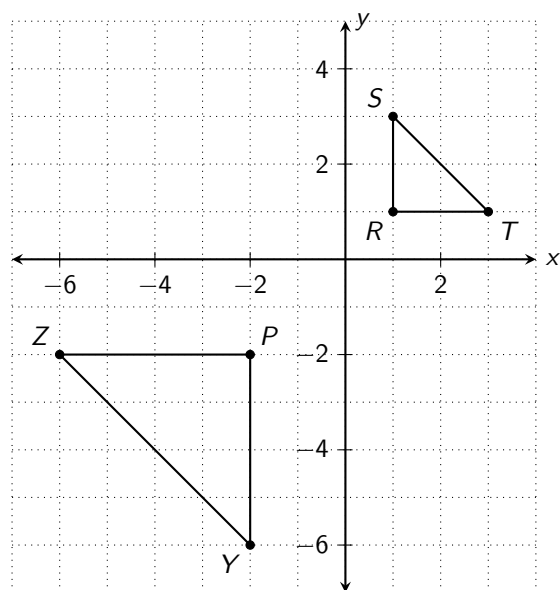


(b) $R_{y\text{-axis}} \circ D_{1.5}$

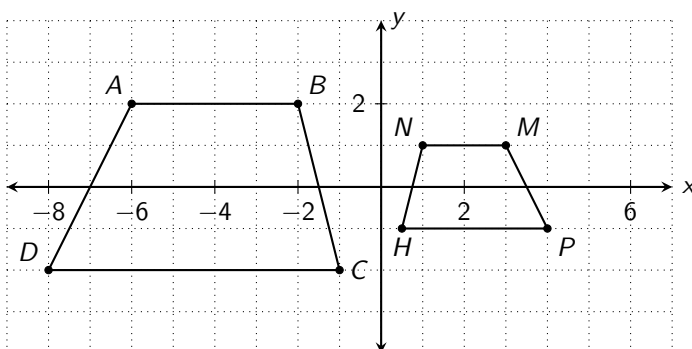


Example 2. What is a composition of rigid motions and dilations that maps each of the following?

(a) $\triangle RST$ to $\triangle PYZ$



(b) $ABCD$ to $MNHP$



Similar Figures

Two figures are similar if and only if there is a similarity transformation that maps one figure onto the other.

Example 3. Is there a similarity transformation that maps $\triangle JKL$ to $\triangle RST$? If so, identify the similarity transformation and write a similarity statement. If not, explain.

