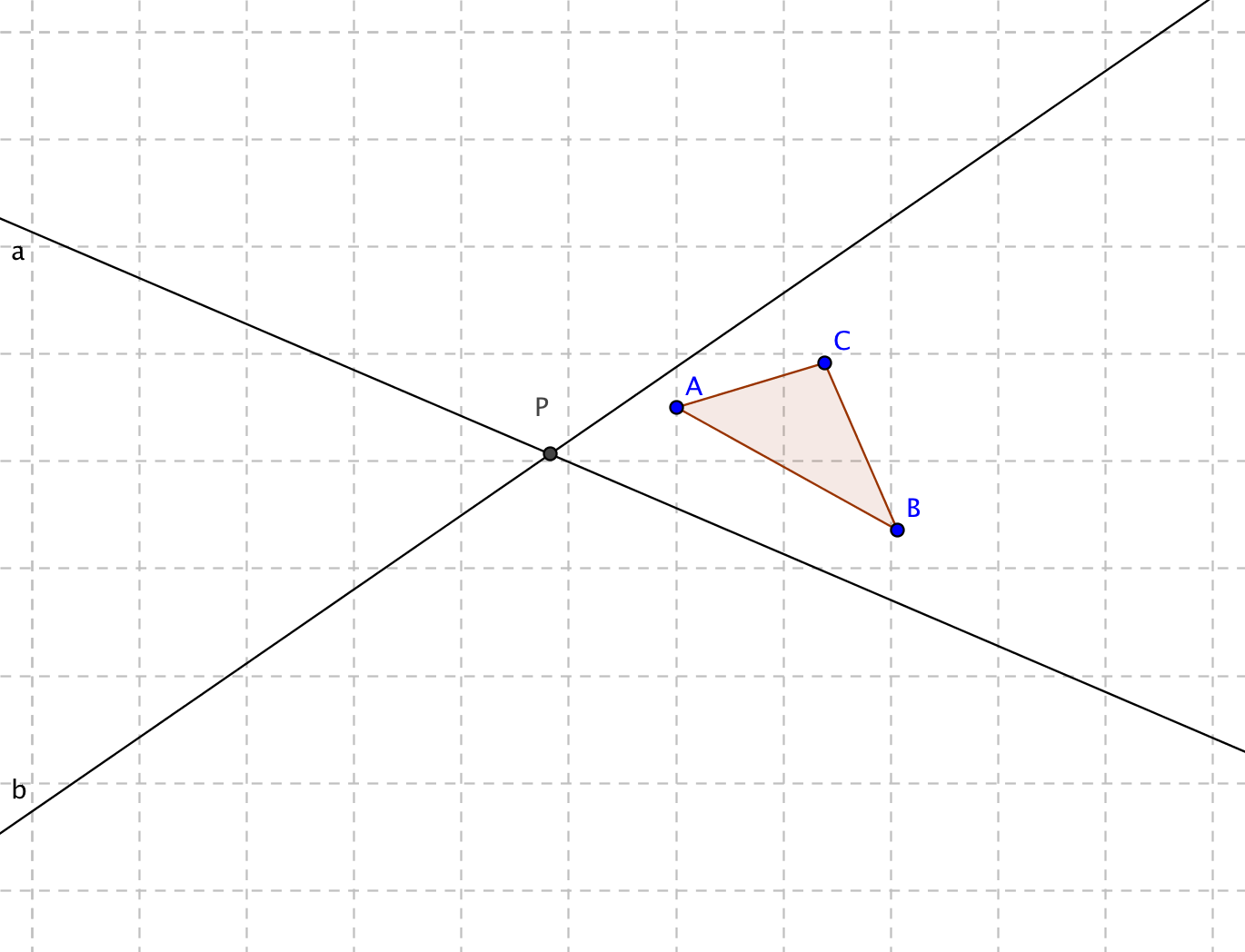
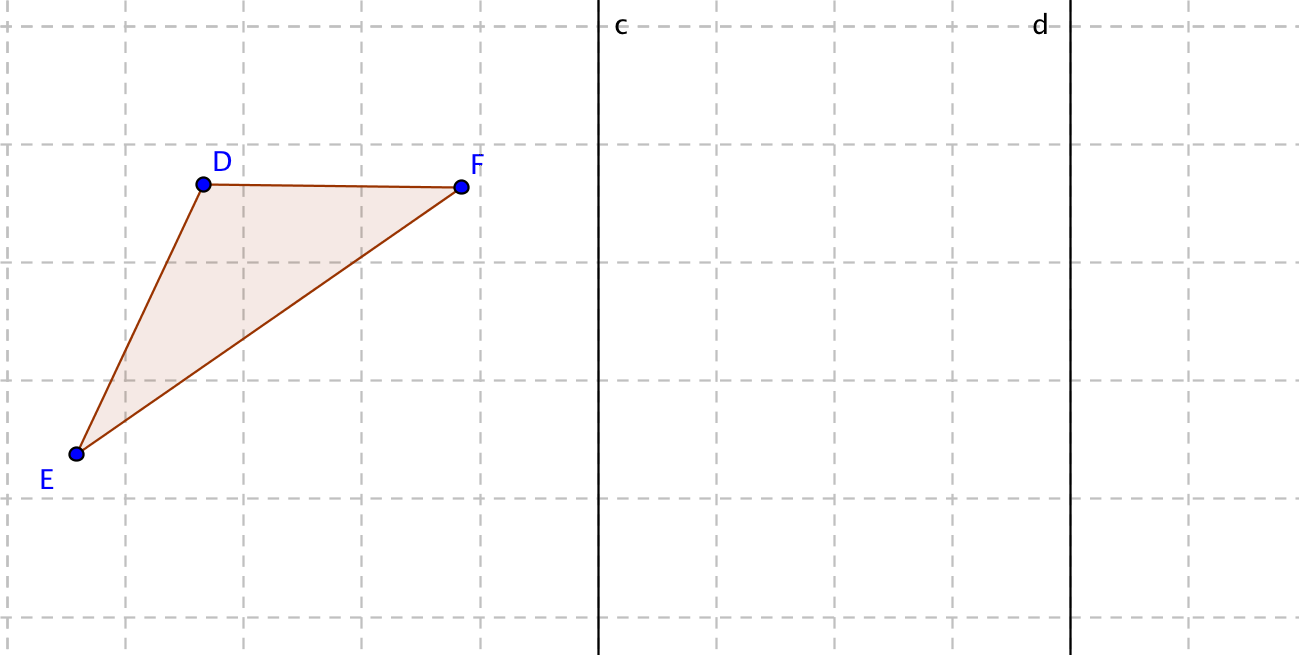
**Activity 1.5.1 Composition – Two Reflections I**

**Directions for Intersecting Lines**

1. On a piece of graph paper, draw **intersecting lines *a* and *b***. Plot a point where the lines intersect and label it ***P***. These lines will be used as lines of reflection.
2. Draw in between the intersecting lines.
3. Place a piece of tracing paper over . Use a straightedge to help you trace and line *a*.
4. Flip the tracing paper over and move it so that line a lies on top of itself.
5. Trace the image of on the tracing paper. Press firmly to make an impression on the graph paper.
6. Lift the tracing paper and draw the image of and label its vertices as .
7. Repeat steps 3-6 to reflect across the line *b*and label its vertices as .
8. Find the measure of and measure the acute angle formed by lines *a* and *b*.

1. Make a conjecture about the relationship between and the acute angle formed by lines *a* and *b*.
2. Describe a single transformation that maps directly onto .

**Directions for Parallel Lines**

1. On a piece of graph paper, draw two **vertical** **parallel lines.** Name the line farthest to theleft** line *c*** and the onefarthest to the right **line *d***.
2. Draw to the left of the first line.
3. Place a piece of tracing paper over . Use a straightedge to help you trace and line *c*.
4. Flip the tracing paper over and move it so that the line lies on top of itself.
5. Trace the image of on the tracing paper. Press firmly to make an impression on the graph paper.
6. Lift the tracing paper and draw the image of and label its vertices as .
7. Reflect across the line *d*and label its vertices as .
8. Measure the distance between lines *c* and *d*, and the lengths of
9. Make a conjecture about the relationship between the distance between lines *c* and *d*, and the lengths of
10. What do you notice about and ?
11. Describe a single the transformation that maps to .
12. How is the distance between lines c and d related to the transformation that maps to ?