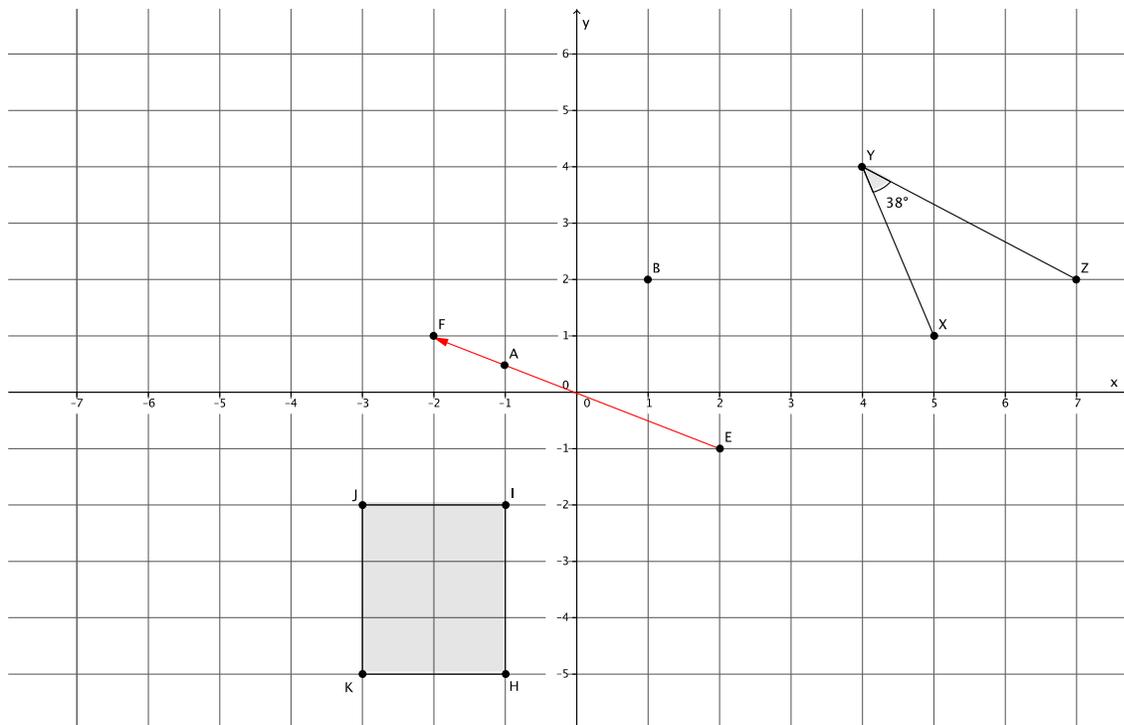


**Lesson Summary**

- Two lines in the plane are parallel if they do not intersect.
- Translations map parallel lines to parallel lines.
- Given a line  $L$  and a point  $P$  not lying on  $L$ , there is at most one line passing through  $P$  and parallel to  $L$ .

**Problem Set**

1. Translate  $\angle XYZ$ , point  $A$ , point  $B$ , and rectangle  $HJKI$  along vector  $\vec{EF}$ . Sketch the images, and label all points using prime notation.



2. What is the measure of the translated image of  $\angle XYZ$ ? How do you know?
3. Connect  $B$  to  $B'$ . What do you know about the line that contains the segment formed by  $BB'$  and the line containing the vector  $\vec{EF}$ ?
4. Connect  $A$  to  $A'$ . What do you know about the line that contains the segment formed by  $AA'$  and the line containing the vector  $\vec{EF}$ ?
5. Given that figure  $HJKI$  is a rectangle, what do you know about lines that contain segments  $HI$  and  $JK$  and their translated images? Explain.