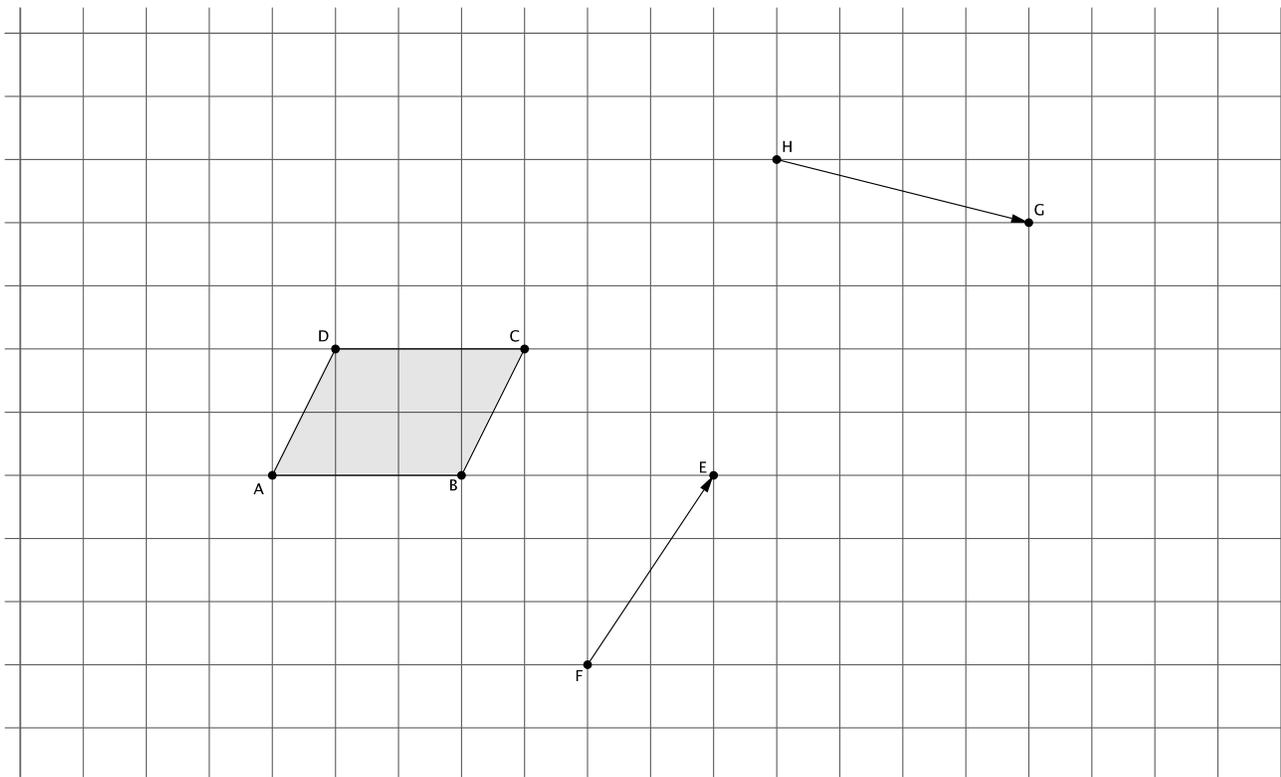


Lesson Summary

- Translating a figure along one vector and then translating its image along another vector is an example of a sequence of transformations.
- A sequence of translations enjoys the same properties as a single translation. Specifically, the figures' lengths and degrees of angles are preserved.
- If a figure undergoes two transformations, F and G , and is in the same place it was originally, then the figure has been mapped onto itself.

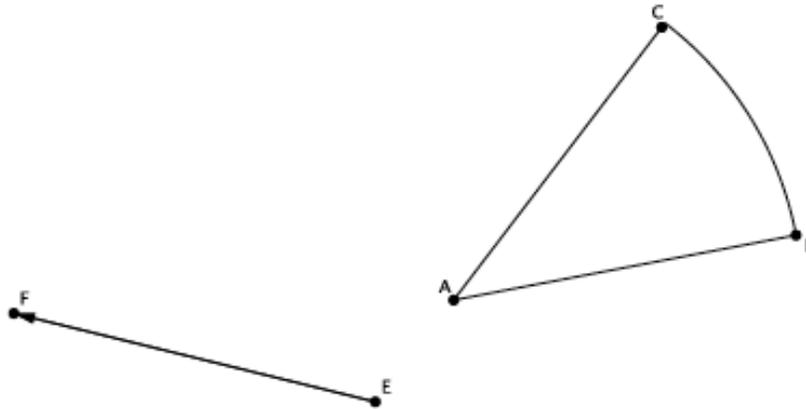
Problem Set

1. Sequence translations of parallelogram $ABCD$ (a quadrilateral in which both pairs of opposite sides are parallel) along vectors \overrightarrow{HG} and \overrightarrow{FE} . Label the translated images.



2. What do you know about \overline{AD} and \overline{BC} compared with $\overline{A'D'}$ and $\overline{B'C'}$? Explain.
3. Are the segments $A'B'$ and $A''B''$ equal in length? How do you know?

4. Translate the curved shape ABC along the given vector. Label the image.



5. What vector would map the shape $A'B'C'$ back onto shape ABC ?