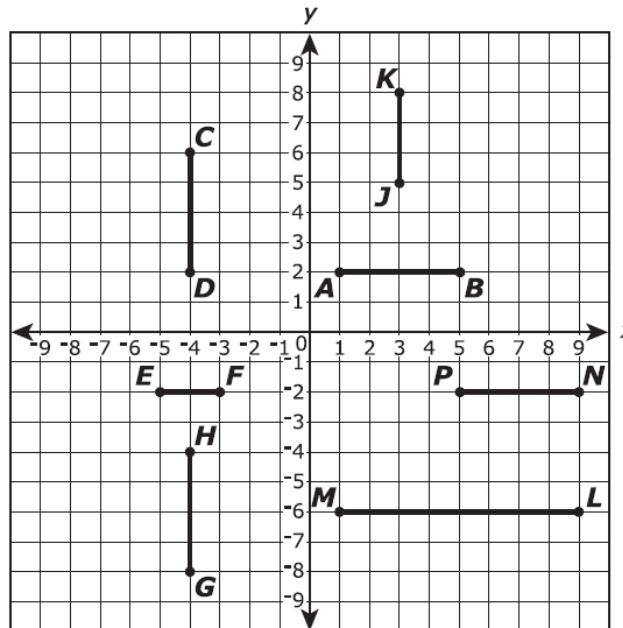


# PARCC Assessment Item Illustrating 8.G.A.1

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Seven line segments are shown on the coordinate plane.



Which of these segments could be the image of segment  $AB$  after a sequence of reflections, rotations, and/or translations?

Select **each** correct answer.

- A. line segment  $CD$
- B. line segment  $EF$
- C. line segment  $GH$
- D. line segment  $JK$
- E. line segment  $LM$
- F. line segment  $NP$

**Answer Key**

A, C, F

### Elaboration on Alignment

Grade 8 marks students' first opportunity to experiment with geometric transformations. Standard 8.G.A.1 requires students to verify experimentally the properties of rotations, reflections and translations. As a result of that experimentation, one conclusion students should come to is that line segments are taken to line segments of the same length, which is the focus of this particular item. This experimentation provides pre-requisite knowledge for defining congruence in terms of rigid motions in 8.G.A.2.

### Learn More

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