## Unit 1 Lesson 15: Symmetry

### 1 Back to the Start (Warm up)

#### Student Task Statement

Here is a segment $AB$:



If you translate the segment up 5 units then down 5 units, it looks the same as it did originally.

1. What other rigid transformations create an image that fits exactly over the original segment?
2. Are there any *single* rigid motions that do the same thing?

### 2 Self Reflection

#### Student Task Statement

Determine all the **lines of symmetry** for the shape your teacher assigns you. Create a visual display about your shape. Include these parts in your display:

* the name of your shape
* the definition of your shape
* drawings of each line of symmetry
* a description in words of each line of symmetry
* one non-example in a different color (a description and drawing of a reflection *not* over a line of symmetry)

### 3 Diabolic Diagonals

#### Student Task Statement

Kiran thinks both diagonals of a kite are lines of symmetry. Tyler thinks only 1 diagonal is a line of symmetry. Who is correct? Explain how you know.



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