Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Julia’s Reflections**

Julia is tired of reflecting over the x and y axes all the time, so she decides to try reflecting some triangles over the line ***y = x***. *(shown below as a dotted line)* This is what she comes up with:

 **Reflection 1 Reflection 2**



**E’**

**A**

**D’**

**B**

**D**

**F’**

**C**

**B’**

**E**

**C’**

**A’**

**F**

 **Reflection 3**

 Write in the coordinates of each original

 point and its corresponding reflection.

**H’**

**G**

**H**

 **A:** \_(-4, 4)\_\_\_\_ **A’:** \_(4, -4)\_\_\_\_

 **B:** \_\_\_\_\_\_\_\_\_\_ **B’:** \_\_\_\_\_\_\_\_\_\_

**I**

 **C:** \_\_\_\_\_\_\_\_\_\_ **C’:** \_\_\_\_\_\_\_\_\_\_

**G’**

**I’**

 **D:** \_\_\_\_\_\_\_\_\_\_ **D’:** \_\_\_\_\_\_\_\_\_\_

 **E:** \_\_\_\_\_\_\_\_\_\_ **E’:** \_\_\_\_\_\_\_\_\_\_

 **F:** \_\_\_\_\_\_\_\_\_\_ **F’:** \_\_\_\_\_\_\_\_\_\_

 **G:** \_\_\_\_\_\_\_\_\_\_ **G’:** \_\_\_\_\_\_\_\_\_\_

 **H:** \_\_\_\_\_\_\_\_\_\_ **H’:** \_\_\_\_\_\_\_\_\_\_

 **I:** \_\_\_\_\_\_\_\_\_\_ **I’:** \_\_\_\_\_\_\_\_\_\_

Do you think Julia’s reflections are correct? Why or why not?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Julia now wants to come up with a rule for reflecting over the line ***y = x***. Based off of her three reflections, this is what she comes up with:



Do you agree or disagree with Julia? Using evidence from her work, write an argument to support why you think she is correct or incorrect.

I **agree** / **disagree** *(circle one)* with Julia because \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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One example that **supports** / **contradicts** *(circle one)* Julia’s pattern is

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