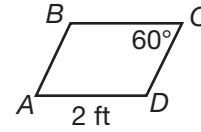
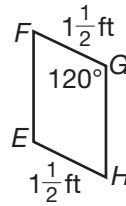


# Transformations and Congruence

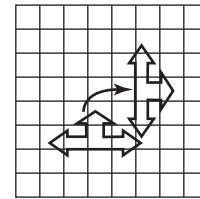
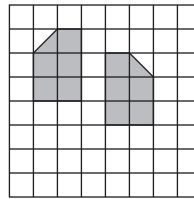
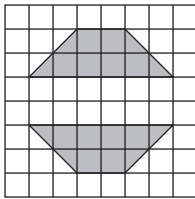
1. These parallelograms are congruent.  
Find  $\overline{CD}$ ,  $\overline{GH}$ , and  $m\angle D$ .

$$\overline{CD} = \underline{\hspace{2cm}} \quad \overline{GH} = \underline{\hspace{2cm}}$$

$$m\angle D \underline{\hspace{2cm}}$$



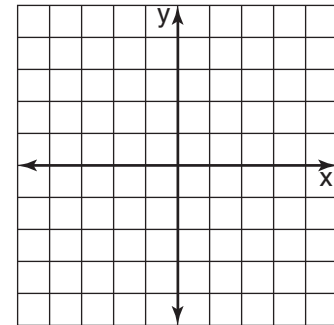
Tell whether the figures in each pair are related by a translation, a reflection, a glide reflection, or a rotation. If the relationship is a rotation, describe it.



2. \_\_\_\_\_ 3. \_\_\_\_\_ 4. \_\_\_\_\_

5. Use the grid. Draw a semi-circle to the left of the y-axis.  
Then show the semi-circle reflected across the y-axis.

\_\_\_\_\_



6. Cole drew two congruent polygons.  
Which is true about *all* congruent figures?

- A Corresponding angles are congruent.
- B Corresponding angles are complementary.
- C Corresponding angles are supplementary.
- D There are no corresponding angles.

7. **Writing to Explain** Draw a figure. Use different transformations of your figure to make a pattern. Show three repetitions. Then explain which transformations are used in your pattern.

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