AGS 1 Name: _____ Period: _____ Date: _____

Geometry Final Review

Transformations
- Translations
- Reflections
- Rotations

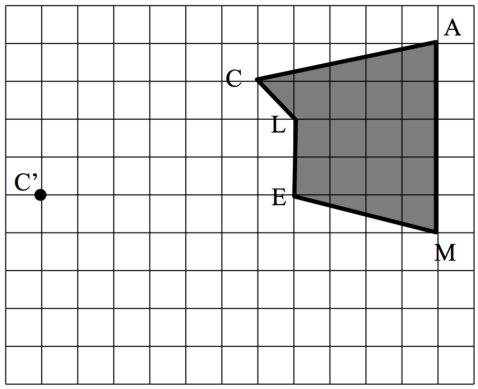
Symmetry/Rotational Symmetry

Constructions
Congruence/Classify
Distance/Perimeter

1. Translate each figure as indicated.

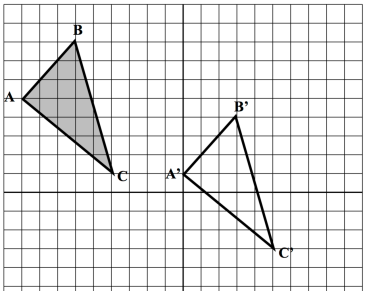
a. Translate CAMEL → C′A′M′E′L′
Then write the rule.

Rule:



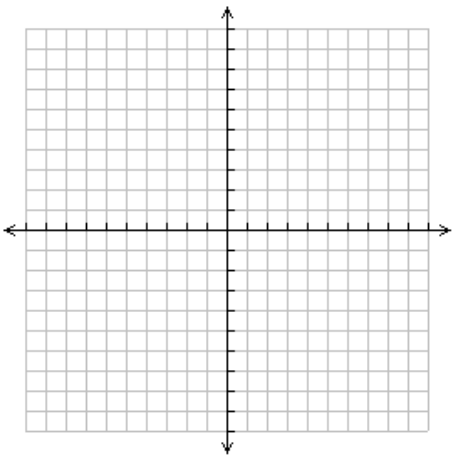
b. Write the rule that translates
ABC → A′B′C′

Rule:



c. Plot the points:
B (–6, 2)
I (–2, 4)
R (2, 1)
D (–4, –2)

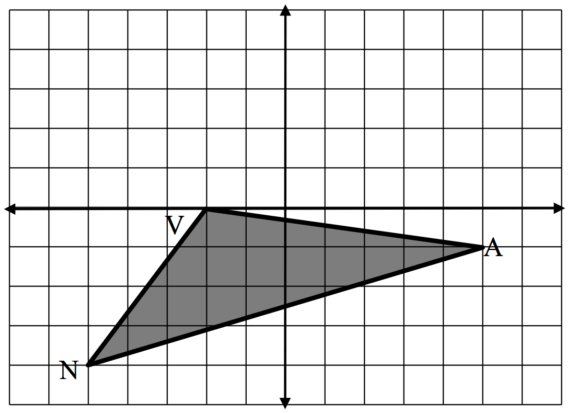
Create and label B′I′R′D′
using the rule: (x + 3, y – 4)



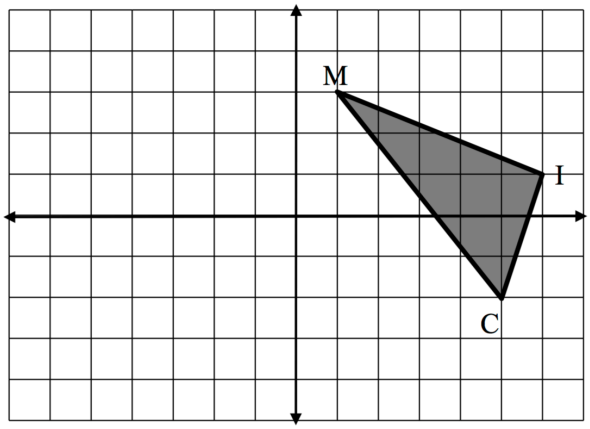
d. How do you know that a figure has been translated and not reflected or rotated?

2. Reflect each figure as indicated. Draw the line of reflection.

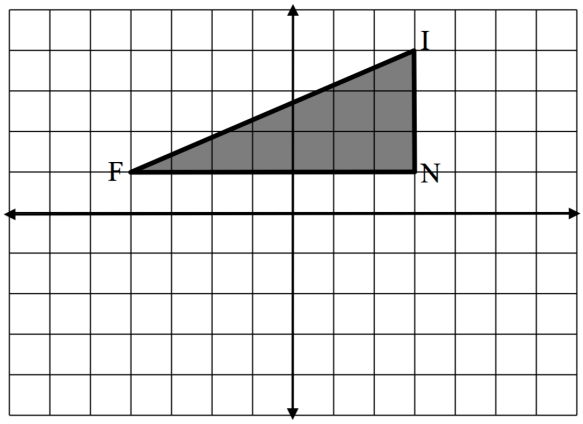
a. Reflect VAN over the x-axis. Label V′A′N′



b. Reflect MIC over the line x = 2. Label M′I′C′

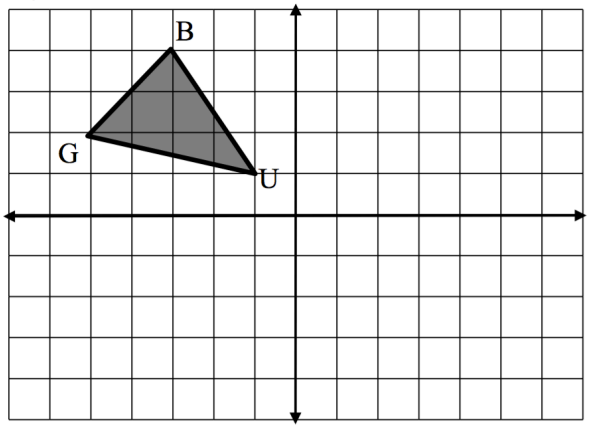


c. Reflect FIN over the line y = –x. Label F′I′N′

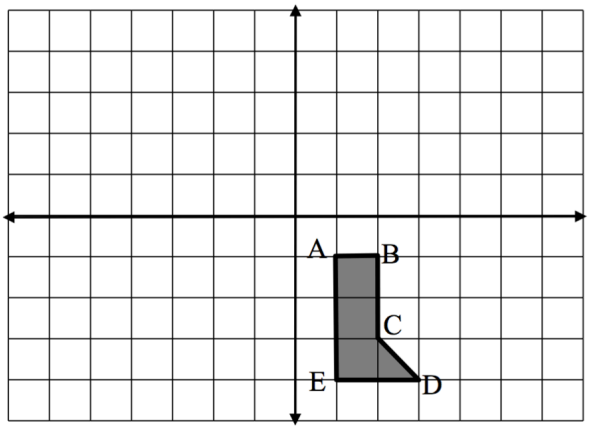


3. Rotate each figure as indicated.

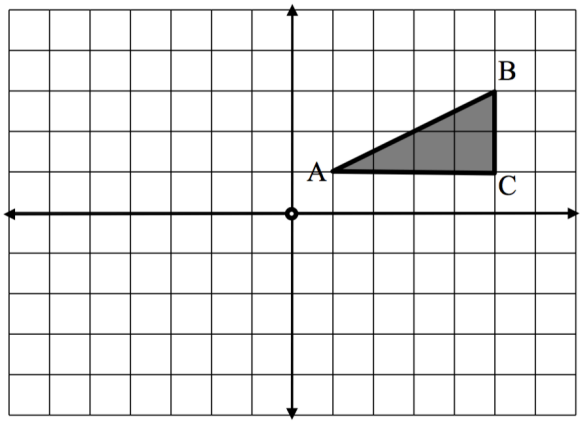
a. Rotate BUG 180°. Label B′U′G′



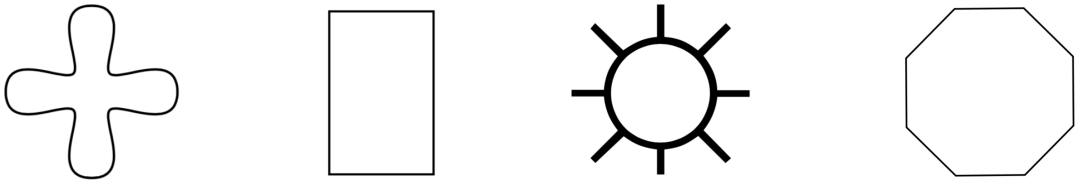
b. Rotate ABCDE 90° counter-clockwise around the origin. Label A′B′C′D′E′



c. Rotate ABC 90° clockwise around the point (1, 3). Label A′B′C′

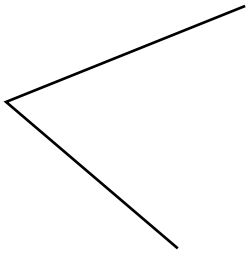


4. For each figure:
   a. Determine the total number of lines of symmetry.
   b. Determine the angle of rotational symmetry.

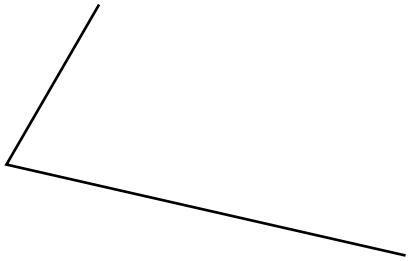


5. Construct each figure as indicated.

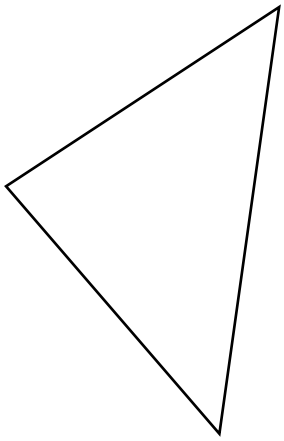
a. Bisect the given angle.



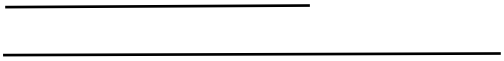
b. Construct a rhombus from the given angle.



c. Copy the triangle

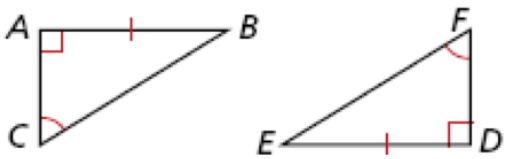


d. Make a rectangle from the given lengths.

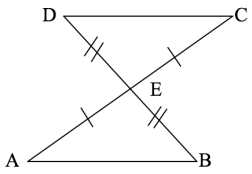


6. Give a basic proof for each pair of triangles.

a.

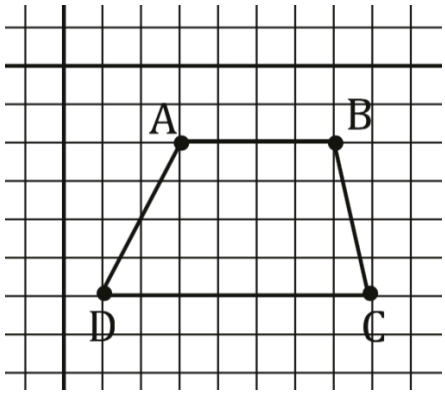


b.



7. Classify each quadrilateral and give its perimeter.

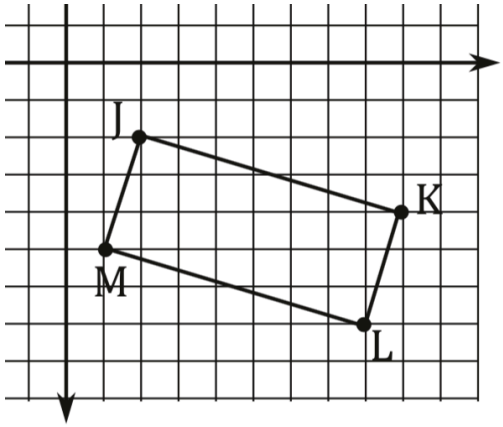
a.



Perimeter:

Shape:

b.



Perimeter:

Shape: