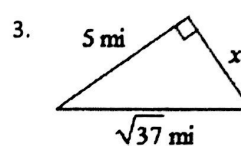
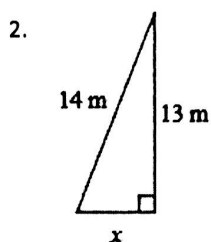
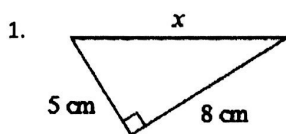


## Pythagorean Theorem, Symmetry, and Transformation Rules

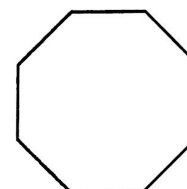
Solve for the missing side using the Pythagorean Theorem:



### Symmetry of Quadrilaterals and Regular Polygons:

1. List all the angles of rotation less than  $360^\circ$  that will carry the figure onto itself.

2. On the regular octagon, draw the lines of reflection (symmetry) that carry the figure onto itself.

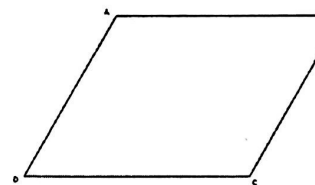


Use for #1-2

3. How many lines of reflection (symmetry) will a seven sided regular polygon have?

4. List all the angles of rotation less than  $360^\circ$  that will carry the figure onto itself.

5. On the parallelogram, draw the lines of reflection (symmetry) that carry the figure onto itself.



Use for #4-5

### Other Review Materials:

Unit 1 Lesson 1 Translations Activity

Unit 1 Lesson 4 Reflections Activity

Memorize your rules for rotation  $90^\circ$ ,  $180^\circ$ , and  $270^\circ$  and reflection over the x-axis, y-axis,  $y = x$ , and  $y = -x$ .  
Review your vocabulary words (especially your definitions and properties of the rigid motion transformations)