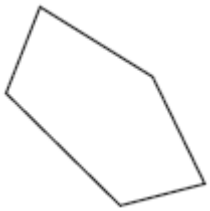
Name _____ **Date** _____

Assignment 7 LESSON 1.6 Show all work for full credit.

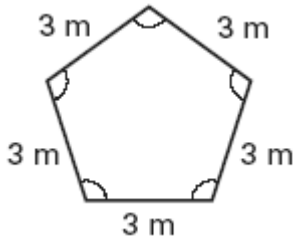
Tell whether the figure is a polygon. If it is not, explain why. If it is a polygon, tell whether it is *convex* or *concave.*

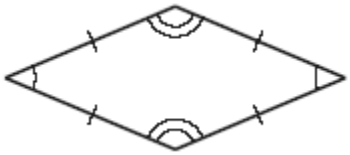
1. 

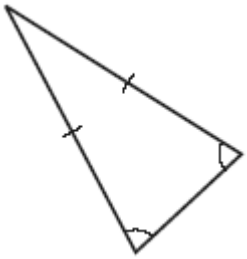
2. 

3. 

Classify the polygon by the number of sides. Tell whether the polygon is *equilateral, equiangular,* or *regular.* Explain your reasoning.

3. 

4. 

5. 

6. The lengths (in feet) of two sides of a regular quadrilateral are represented by the expressions $8x - 6$ and $4x + 22$. Find the length of a side of the quadrilateral.

7. The expressions $-2x + 41$ and $7x - 40$ represent the lengths (in kilometers) of two sides of an equilateral pentagon. Find the length of a side of the pentagon.

Tell whether the statement is *always, sometimes,* or *never* true.

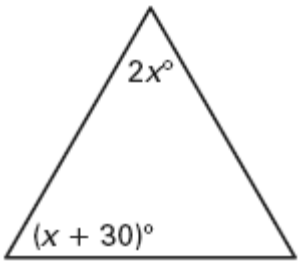
8. A quadrilateral is convex.

9. An octagon is regular.

10. A triangle is concave.

11. A regular polygon is equilateral.

Each figure is a regular polygon. Find the value of *x.*

12. 

13.