$\qquad$
Date: $\qquad$ Period: $\qquad$

## SHOW ALL WORK!

Find the $m \angle A B C$ and $m \angle C B D$.


Find the $m \angle E F H$ and $m \angle H F G$.

3. Find $x$ and $y$.


Use the diagram to determine wither the angles are vertical, linear pairs, or neither.
4. $\angle 4$ and $\angle 3$
5. $\angle 1$ and $\angle 5$
6. $\angle 2$ and $\angle 5$

7. $\angle 4$ and $\angle 5$

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.
8.

9.

10.


Classify the polygon by the number of sides. Tell whether the polygon is equilateral, equiangular, or regular. Explain your reasoning.
11.

12.

13.

14. The lengths (in feet) of two sides of a regular quadrilateral are represented by the expressions $8 x-6$ and $4 x+22$. Find the length of a side of the quadrilateral.
15. The measure of one angle is $62^{\circ}$ less than the measure of its supplement. Find the measure of each angle.

