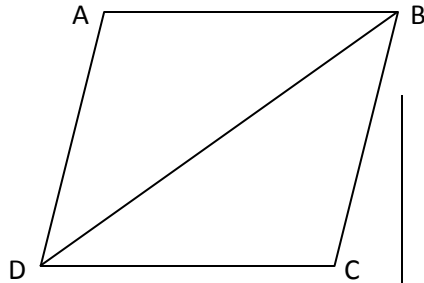


Geometry (G.CO.11)

Unit One B: Special Parallelograms #4 (HW47)

1. Quadrilateral ABCD is a parallelogram.



a.) If $m\angle CDB = 24^\circ$; $m\angle A = (6x + 9)^\circ$ and $m\angle BDA = 33^\circ$, find x .

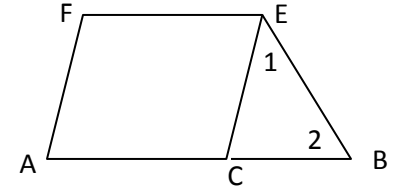
b.) The perimeter of ABCD is 56. Find the dimensions if $AB = 3x + 7$ and $DA = x - 3$.

Name: _____

Date: _____ Period: _____

2. Given: ACEF is a parallelogram;
 $\angle 1 \cong \angle 2$; $\overline{AC} \cong \overline{BC}$

Prove: ACEF is a rhombus

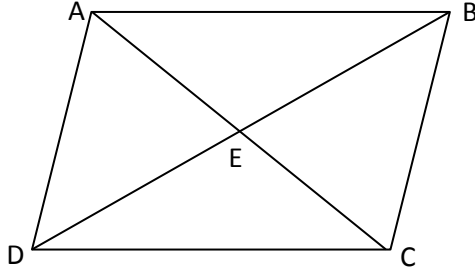


Statements	Reasons

3. Think carefully about the properties of the polygon given below.
Answer the questions accordingly.

Given: Rectangle ABCD,

$$m\angle DAE = 33^\circ$$



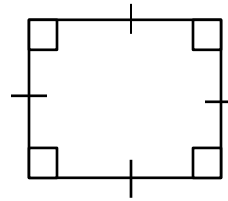
a.) $m\angle BAE =$ _____

b.) $m\angle ABE =$ _____

c.) $m\angle BEC =$ _____

d.) $m\angle CED =$ _____

4. List all of the quadrilateral names that can correctly be used to describe the figure below.



5. Decide if the following statements are sometimes, always, or never true.

- a) _____ If a quadrilateral has opposite sides congruent and one right angle, the figure is a rectangle.
- b) _____ If one angle of a parallelogram is a right angle, then the figure is a square.
- c) _____ If the diagonals of a quadrilateral are congruent, then the figure is a square.
- d) _____ If the diagonals of a parallelogram bisect the angles of the parallelogram, then the quadrilateral is a rectangle.