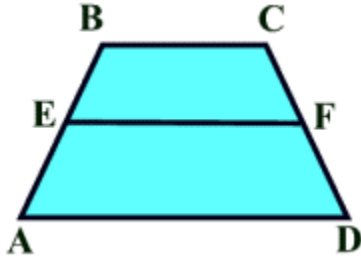


Name: _____
Date: _____
Class: _____

Geometry
Unit 6
HW 6-4

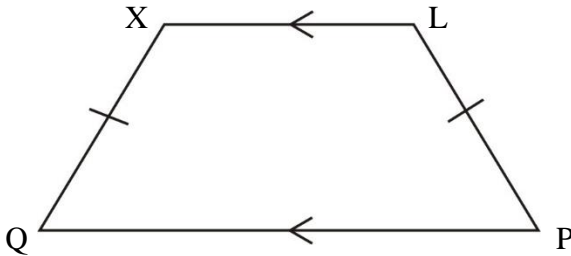
Use the following diagram for #1 – 3



→ BCDA is a trapezoid
→ $\overline{BC} \parallel \overline{EF} \parallel \overline{AD}$

- 1) If $m\angle CBE = 3x + 32.5$ and $m\angle BAD = 4x - 10$ find $m\angle FEB$.
- 2) If $AD = 22$ and $EF = 15$ find BC
- 3) If $AD = 2x + 6$, $EF = 5 + x$, and $BC = \frac{1}{2}x - 1$ find AD .

Use the following diagram for #4 and 5

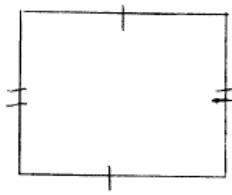


- 4) If $m\angle X = 8x - 30$ and $m\angle P = 4x$ find $m\angle L$.
- 5) If $XL = 4x$, $LP = 3x - 1$, $QP = 6x + 3$, and $XQ = 2x + 4$ find the perimeter of the trapezoid.
- 6) In trapezoid TYUI (TY is a base), $m\angle T = 10x - 30$, $m\angle Y = 8x - 17$, $m\angle U = 4x + 29$, find $m\angle I$.

7) In isosceles trapezoid GHJK (GH is the smaller base), $GH = 3x - 27$, $GJ = x - 1$, and $HK = 2x - 18$. Find the length of GH.

8) If a quadrilateral has 4 sides, one set of opposite sides that are both parallel and congruent what type of quadrilateral must it be?

9)



What type of quadrilateral is this and how do you know?

10) In quadrilateral SDFG, $m\angle S = 13x + 1$, $m\angle D = 12x + 9$, $m\angle F = 10x - 5$, and $m\angle G = 8x + 11$. What type of quadrilateral must this be?

11) In rectangle ZXCW, $ZX = 2x - 4$, $XC = x + 1$, and $CZ = 3x - 9$. Find $m\angle VZC$ to the nearest hundredth.