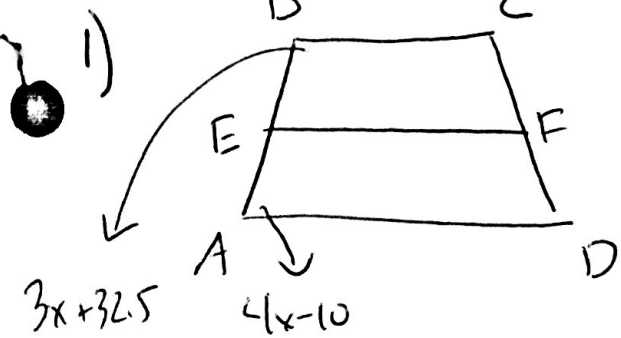


Geo HW 6-4

(cons int \angle 's are supp)



$$3x + 32.5 + 4x - 10 = 180$$

$$7x + 22.5 = 180$$

$$7x = 157.5$$

$$x = 22.5$$

$m\angle FEB = m\angle BAD$ (corr \angle 's \cong w/ || lines)

$$4(22.5) - 10 = \boxed{80^\circ}$$

2) $22 - 15 = 7$
 $15 - 7 = \boxed{8}$

* midsegment is equal difference from bases distances

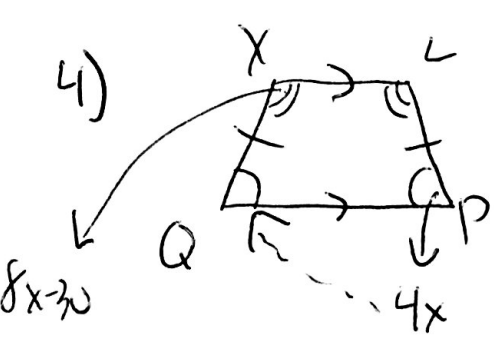
3) $2x + 6 + \frac{1}{2}x - 1 = 2(5 + x)$ * midsegment is average of bases

$$2.5x + 5 = \frac{10 + 2x}{2}$$

$$0.5x = 5$$

$$x = 10$$

$$AD \rightarrow 2(10) + 6 = \boxed{26}$$



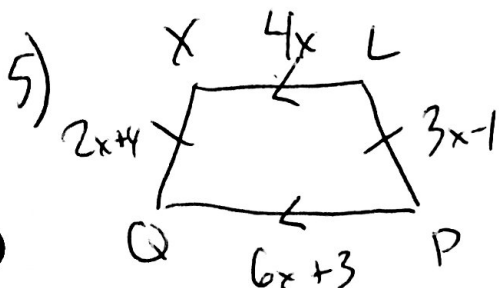
$$8x - 30 + 4x = 180 \text{ (cons int } \angle\text{'s supp)}$$

$$12x = 210$$

$$x = 17.5$$

$\angle L \cong \angle X$ base \angle 's of isos trap \cong

$$8(17.5) - 30 = \boxed{110^\circ}$$



$2x + 4 = 3x - 1$ legs \cong in isos trap

$$5 = x$$

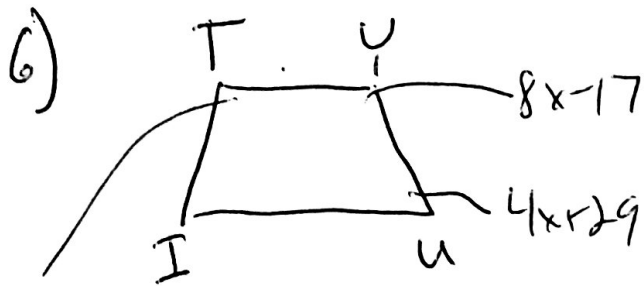
$$4(5) = 20$$

$$3(5) - 1 = 14$$

$$2(5) + 4 = 14$$

$$6(5) + 3 = 33$$

$$\boxed{P \rightarrow 81}$$



(cons int \angle 's supp)

$$8x-17 + 4x+29 = 180$$

$$12x+12 = 180$$

$$12x = 168$$

$$x = 14$$

$$10x-30$$

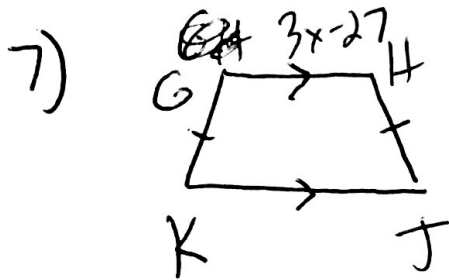
$$10(14)-30 = 110^\circ$$

$$4(14)+29 = 85^\circ$$

$$8(14)-17 = 95^\circ$$

$$360 - (110 + 85 + 95) = 70^\circ = m\angle I$$

(4 \angle 's of Quad = 360)

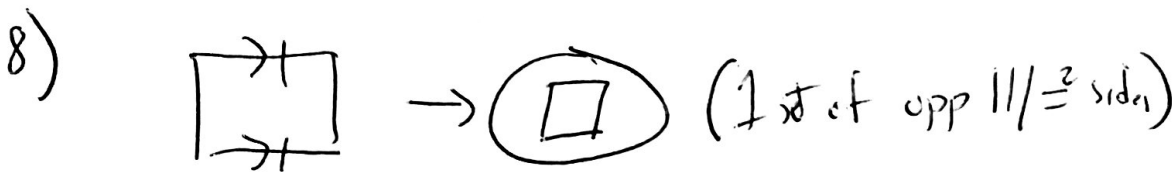


(legs \cong in isos trap)

$$x-1 = 2x-18$$

$$17 = x$$

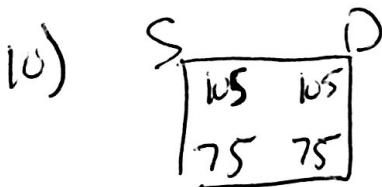
$$3(17)-27 = 24 = GH$$



2 sets opp \cong sides \rightarrow square



* Isos Trap b/c 2 sets of \cong base \angle 's



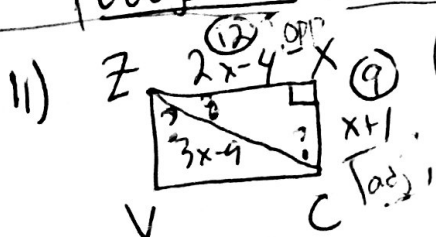
(4 \angle 's Quad = 360)

$$13x+1 + 12x+9 + 10x-5 + 8x+11 = 360$$

$$43x = 344$$

$$x = 8$$

~~Triangle~~



$$(2x-4)^2 + (x+1)^2 = (3x-4)^2$$

$$5x^2 - 14x + 17 = 9x^2 - 54x + 81$$

$$0 = 4x^2 - 40x + 64$$

$$0 = 4(x^2 - 10x + 16)$$

$$0 = 4(x+8)(x-2)$$

$x = 2$ or $x = 8$
1 leg side
~~Triangle~~
~~360~~

$$\tan^{-1} \frac{12}{9} \rightarrow x = 53.13^\circ$$