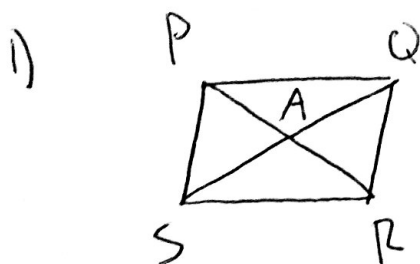


Geo HW 6.2

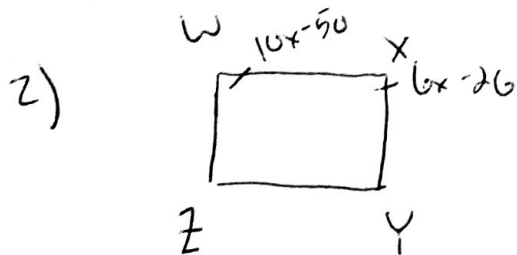


$$2(3x-3) = 5x+1 \quad (\text{diags bisect each other})$$

$$6x-6 = 5x+1$$

$$x=7$$

$$3(7)-3 = \boxed{18 = PA = AR}$$



$$10x-50 + 6x-26 = 180 \quad (\text{cons } \angle\text{s of } \square \text{ are supp})$$

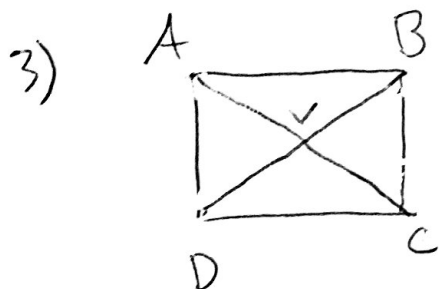
$$16x-76 = 180$$

$$16x = 256$$

$$x = 16$$

$$\angle Y \cong \angle W \quad (\text{opp } \angle\text{s of } \square \cong)$$

$$10(16) - 50 = \boxed{110^\circ = m \angle Y}$$



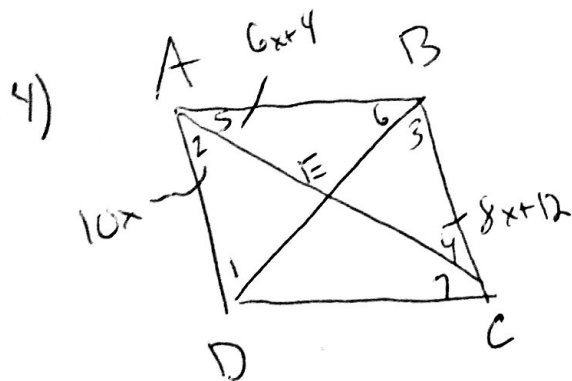
$$AC = BD \quad (\text{diags of rect are } =)$$

$$3x-1 = 2x+7$$

$$x=8$$

$$AV = \frac{1}{2} AC \quad (\text{diags of rect bisect each other})$$

$$3(8)-1 = \frac{23}{2} = \boxed{11.5 = AV}$$



$$\angle 2 \cong \angle 4 \rightarrow \text{diags of } \square \text{ create } \cong \text{ alt int } \angle\text{s}$$

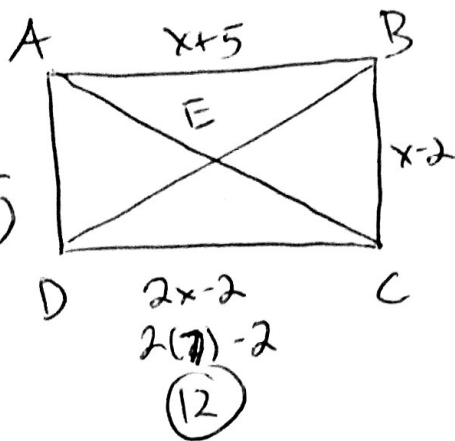
$$10x = 8x+12$$

$$2x = 12$$

$$x = 6$$

$$\angle 7 \cong \angle 5 \quad \uparrow$$

$$6(6)+4 = \boxed{40^\circ = m \angle 7}$$



$AB = CD$ (opp sides of rect are =)

$$x+5 = 2x-2$$

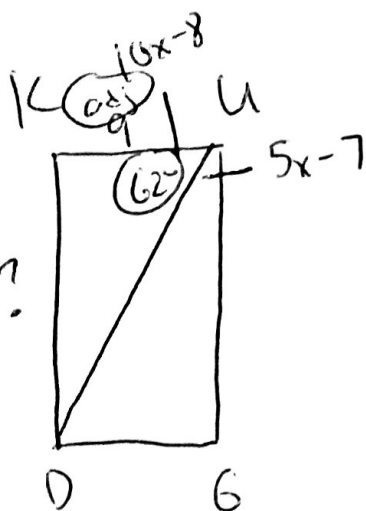
$$x = 7$$

$\triangle ADC$ is a rt \triangle (\angle 's of rect are rt \angle 's)

$$5^2 + 12^2 = (AC)^2$$

$$AC = 13$$

$$\text{perim} \rightarrow 5 + 12 + 13 = \boxed{30}$$



$m\angle KUD + m\angle DUG = 90^\circ$ (\angle 's of rect are rt \angle 's)

$$10x-8 + 5x-7 = 90$$

$$15x - 15 = 90$$

$$15x = 105$$

$$x = 7$$

$$10(7) - 8 = \underline{62^\circ}$$

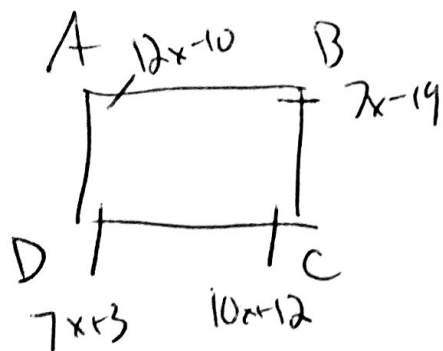
∇ Need $A = bh$
 $\triangle KUD$ is a rt \triangle

$$\tan \frac{62^\circ}{1} = \frac{x}{9}$$

$$x = 16.926\dots$$

$$A = 9(16.926\dots)$$

$$\boxed{A = 152.34}$$



$$12x-10 + 7x-19 + 10x+12 + 7x+3 = 360$$

$$36x - 14 = 360$$

$$36x = 374$$

$$x = \frac{374}{36} = \frac{187}{18}$$

(4 \angle 's of quad must = 360)

$$m\angle A = 114.67$$

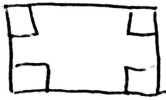
$$m\angle B = 53.72$$

$$m\angle C = 115.89$$

$$m\angle D = 75.72$$

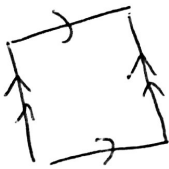
* just a quad, no prop of rect or \square .

8)



$\square \rightarrow$ opp \angle 's are \cong
rect \rightarrow has 4 rt \angle 's

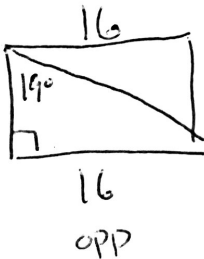
9)



$\square \rightarrow$ opp sides \parallel

16)

adj ?



$$\tan 19 = \frac{16}{x}$$

$$x = 46.467\dots$$

$$\text{perim} = 2(16) + 2(46.467\dots)$$

$$\boxed{\text{perim} = 124.93}$$