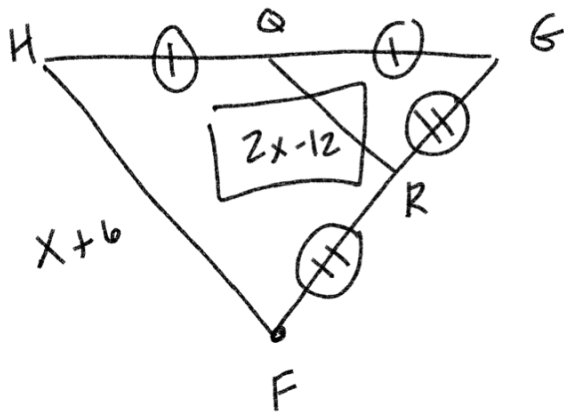


TH-G Geometry week 25



$$X = 10$$

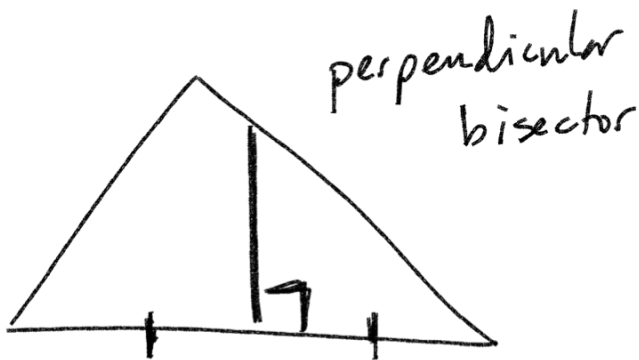
Midsegment

\overline{QR} Midsegment

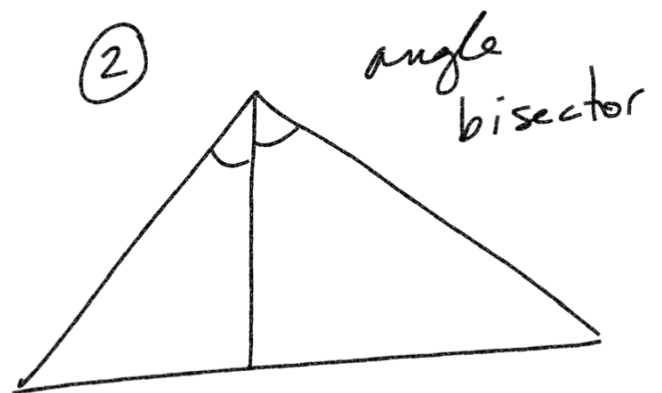
\overline{HF} Base

$$\begin{aligned}
 HF &= 2QR \\
 \downarrow \\
 X+6 &= 2(2x-12) \\
 X+6 &= 4x-24 \\
 -X &\quad -X \\
 6 &= 3x-24 \\
 +24 &\quad +24 \\
 30 &= 3x \\
 \frac{30}{3} &= \frac{3x}{3}
 \end{aligned}$$

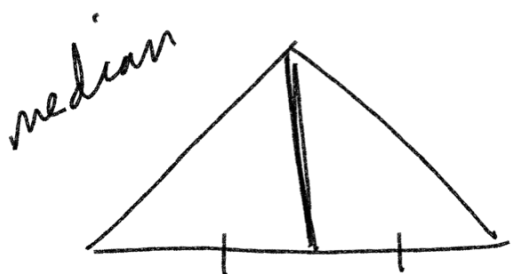
(1)

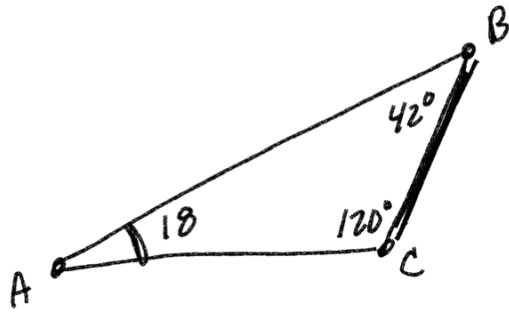


(2)



(3)

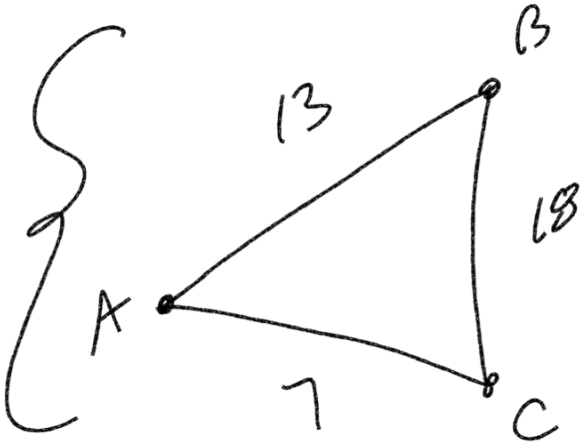




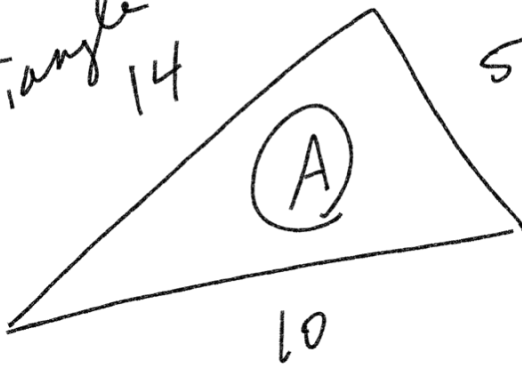
Sides
from least to greatest

→ A	B	C
18°	42°	120°
↓	↓	↓
<u>BC</u>	AC	AB

angle
least to greatest
B, C, A



is triangle

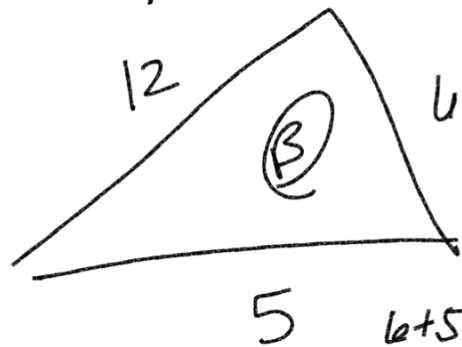


$$14 + 5 = 19 > 10$$

$$5 + 10 = 15 > 14$$

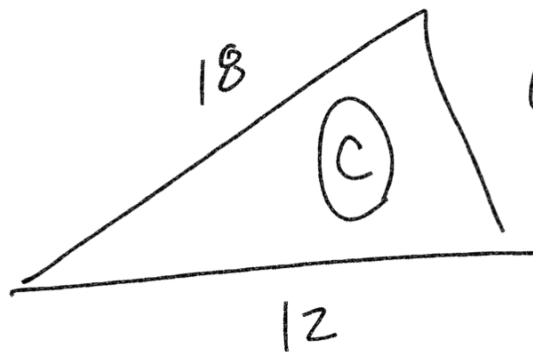
$$14 + 10 = 24 > 5$$

not triangle

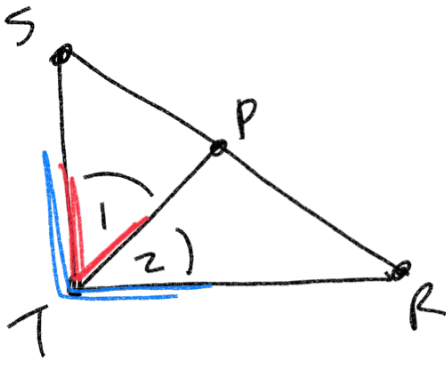


$$6 + 5 > 12$$
~~$$11 > 12$$~~

not triangle



~~$$12 + 6 > 18$$~~
~~$$18 > 18$$~~



\overline{TP} angle bisector

$$\angle 1: 16x - 1$$

$$\angle RTS = 30x + 6$$

$$\angle RTS = \angle 1 + \angle 2$$

$$\angle 1 = \angle 2$$

$$\angle RTS = 2(\angle 1)$$

$$30x + 6 = 2(16x - 1)$$

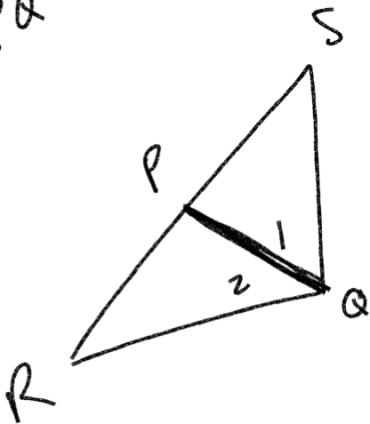
$$30x + 6 = 32x - 2$$

$$30x + 8 = 32x$$

$$\frac{8}{2} = \frac{2x}{2}$$

$$x = 4$$

\overline{PQ} angle bisector



$$\angle 1 = -7 + 7x$$

$$\angle 2 = 5x + 13$$

$$\angle 1 = \angle 2$$

$$-7 + 7x = 5x + 13$$

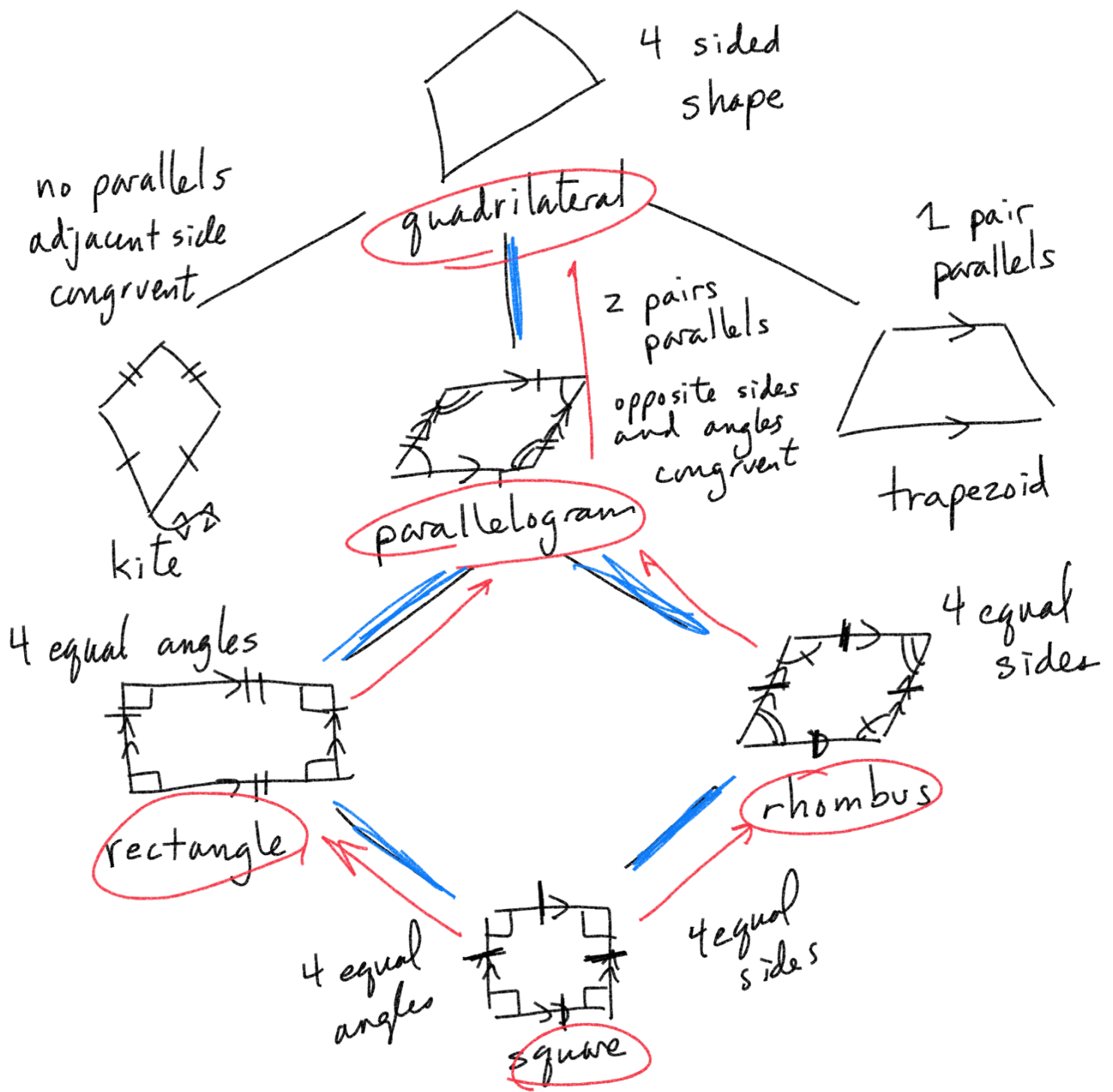
$$-5x - 5x$$

$$-7 + 2x = 13$$

$$+7 \quad +7$$

$$\frac{2x}{2} = \frac{20}{2}$$

$$x = 10$$



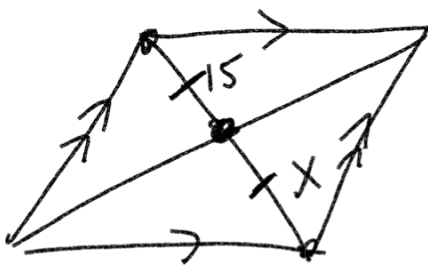
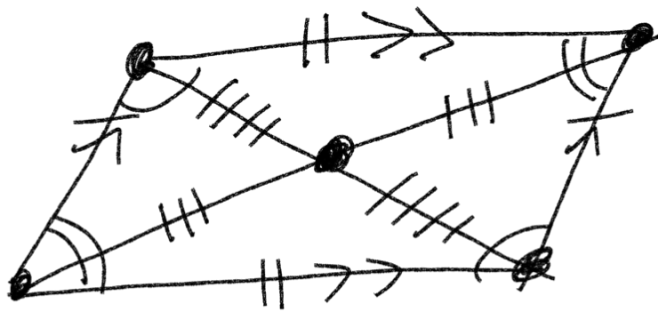
Rhombus

- parallelogram
- quadrilateral

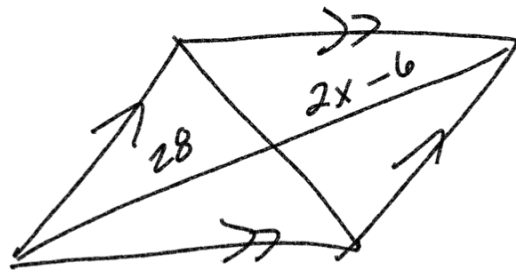


Parallelogram

Diagonal bisectors



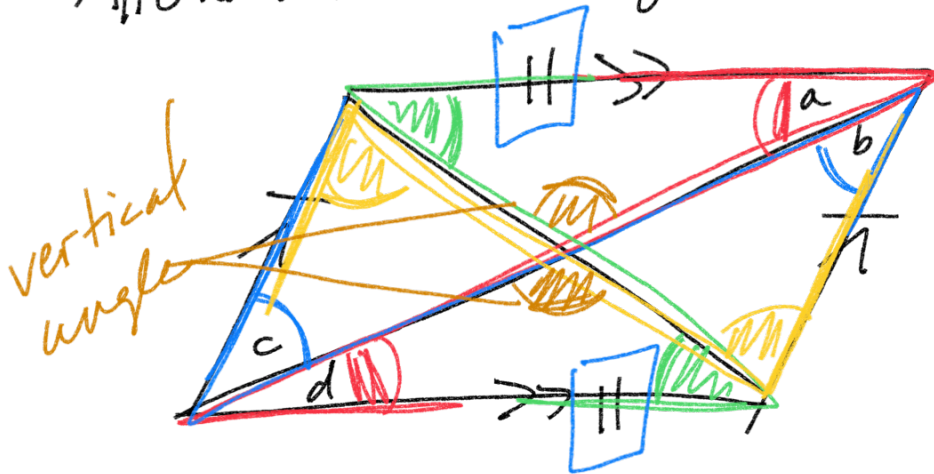
$$x = 15$$



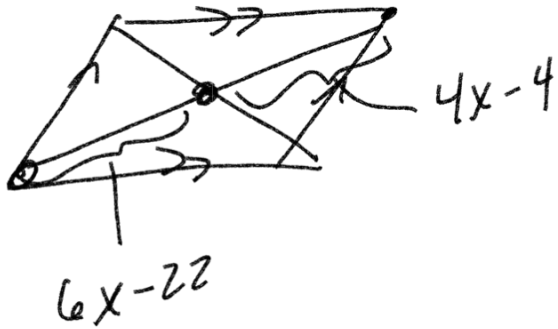
$$\begin{aligned} 28 &= 2x - 6 \\ +6 & \quad +6 \\ \hline 34 &= 2x \\ \frac{34}{2} &= \frac{2x}{2} \end{aligned}$$

$$x = 17$$

Alternate Interior Angles



$\angle a \cong \angle d$
alternate interior angles
 $\angle b \cong \angle c$



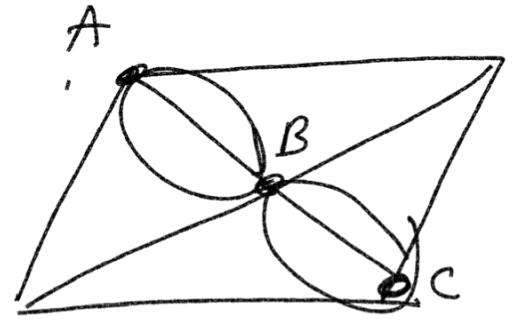
$$6x - 22 = 4x - 4$$

$$+22 \quad +22$$

$$6x = 4x + 18$$

$$-4x \quad -4x$$

$$\frac{2x}{2} = \frac{18}{2} \quad \boxed{x = 9}$$



$$AC = 39 \quad BC = 4x + 3$$

$$\downarrow$$

$$39 = 2(4x + 3)$$

$$39 = 8x + 6$$

$$-6 \quad -6$$

$$\frac{33}{8} = \frac{8x}{8} \quad \boxed{x = \frac{33}{8}}$$

HW
 ch 6.1 evens
 ch 6.2 evens
 Supplemental WS
 Online HW 25 } April 15th
 Quiz 25 }
 HW/a 23 March 26th
 (tomorrow)
 HW/a 24 April 8th

