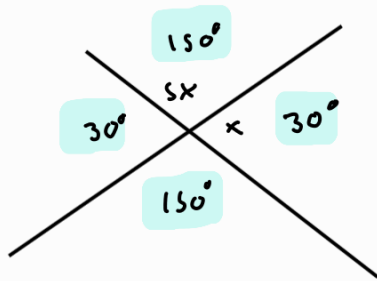


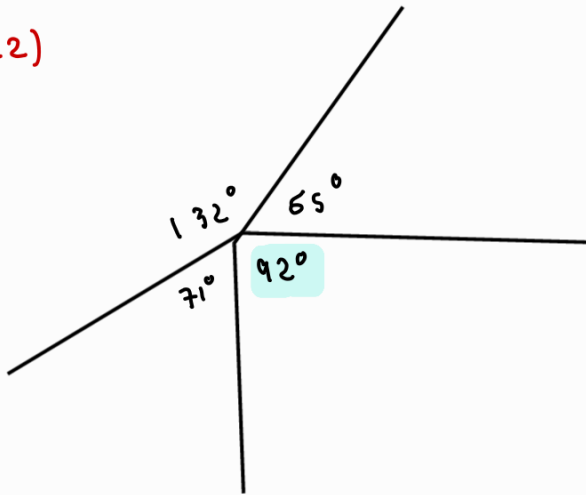
10.21)



$$6x = 180^\circ$$

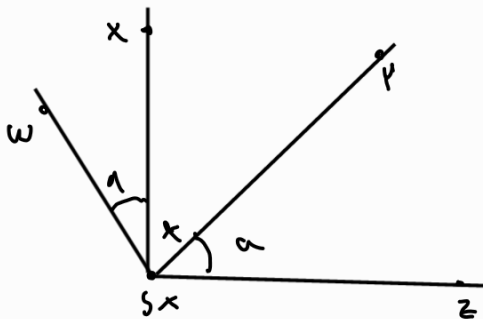
$$x = 30^\circ$$

10.22)



$$360^\circ - 132^\circ - 65^\circ - 71^\circ$$

10.23)



$$a = 2x$$

$$2a = 4x$$

$$5x - 90 = 6 \quad b = a$$

$$5x - 90 = a$$

$$a + x = 90^\circ$$

$$5x = 40^\circ$$

$$x = 30^\circ$$

10.24)

minuten  $180^\circ$

$$\text{hora: } 8(30) + \frac{1}{2}(30) = 240 + 15$$

$$= 255^\circ$$

$$255^\circ - 180^\circ = 75^\circ$$

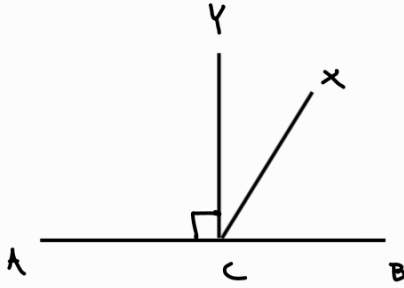
10.25)

1: 56 min

$$21 \text{ min} \times \frac{1 \text{ rev.}}{60} = \frac{21}{60} \text{ rev} = \frac{3}{10} \times 360^\circ = 108^\circ$$

56 min 50 8

(0.26)



$$\angle ACX = \frac{3}{2} \angle BCX$$

$$\angle ACX - 90^\circ = \angle YCX$$

$$90^\circ + \angle YCX + \angle XCB = 180^\circ$$

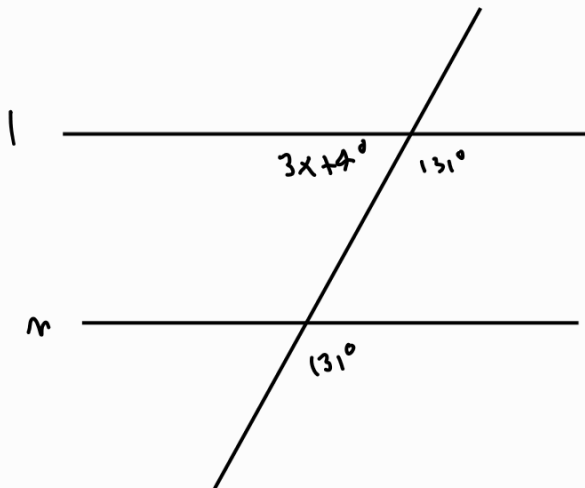
$$90^\circ + \angle YCX + \frac{2}{3} \angle ACX = 180^\circ$$

$$\frac{3}{3} \angle YCX + \frac{2}{3} (\angle YCX + 90^\circ) = 90^\circ$$

$$\frac{5}{3} \angle YCX = 90^\circ$$

$$\angle YCX = \frac{90 \cdot 3}{5} = 54^\circ$$

(0.27)



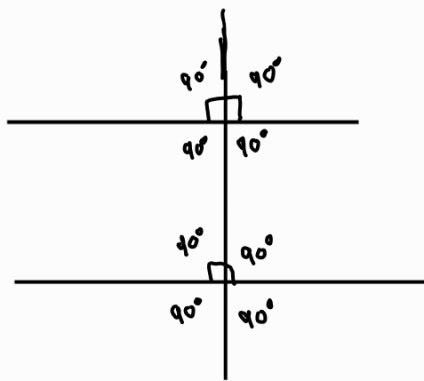
$$(31^\circ + 3x + 4^\circ) = 180^\circ$$

$$3x = 180 - 135$$

$$3x = 45^\circ$$

$$x = 15$$

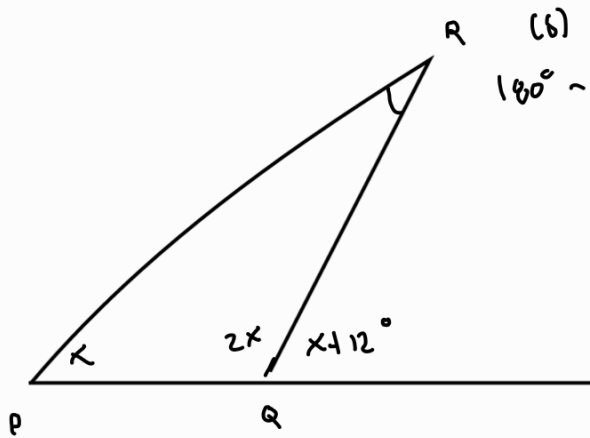
(0.28)



los ángulos son congruentes, por lo tanto  
si son paralelas.

10.29)

(a)



$$\begin{aligned} 180^\circ - x - 2x &= 180 - 3(56) \\ &= 180 - 168^\circ \\ &= 12^\circ \end{aligned}$$

$$180 = 2x + x + 12$$

$$180 = 3x + 12$$

$$\frac{168}{3} = x \quad x = 56^\circ$$

es posible...

$$x + 2x + a = 180^\circ$$

$$\begin{aligned} \text{y sabemos que } 2x + x + 12 &= 180^\circ \\ 2x + x &= 168^\circ \end{aligned}$$

sustituyendo...

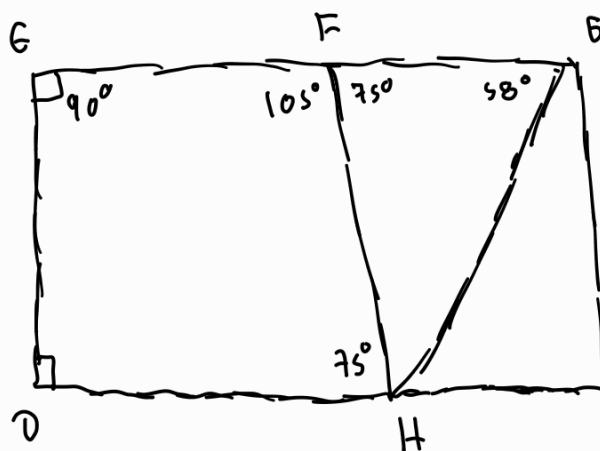
$$168^\circ + a = 180^\circ$$

$$a = 12^\circ$$

$$\begin{array}{r} 56 \\ 3 \overline{) 168} \\ \underline{15} \phantom{0} \\ 18 \phantom{0} \\ \underline{18} \\ 0 \end{array}$$

10.30)

(a)



$$90^\circ$$

$$(b) \quad 105^\circ$$

$$(c) \quad 180^\circ - 133^\circ = 47^\circ$$

10.31)

$$x + 20 \quad 2(x + 20)$$

x

$$x + x + 20 + 2x + 40 = 180^\circ$$

$$4x = 120^\circ$$

$$x = 30^\circ$$

$$x + 20 = 50^\circ$$

$$2(x + 20) = 100^\circ$$

10.32)

$$\angle CBA + \angle ABD = 180^\circ$$

$$\angle ABD = \angle A + \angle C$$

$$\angle C + \angle B + \angle A = 180^\circ$$

$$\angle ABD = 180^\circ - \angle CBA$$

$$\angle ABD = 180^\circ - (180 - \angle C - \angle A)$$

$$\angle ABD = \angle C + \angle A.$$

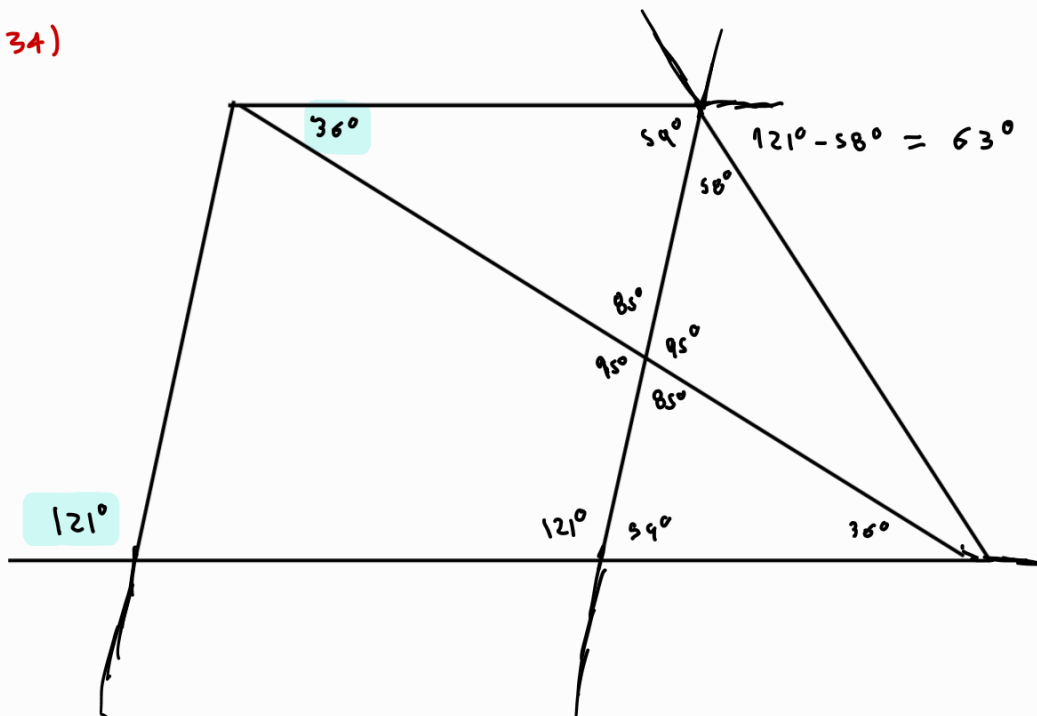
10.33)

$$x + 2x + 3x + 4x = 360^\circ$$

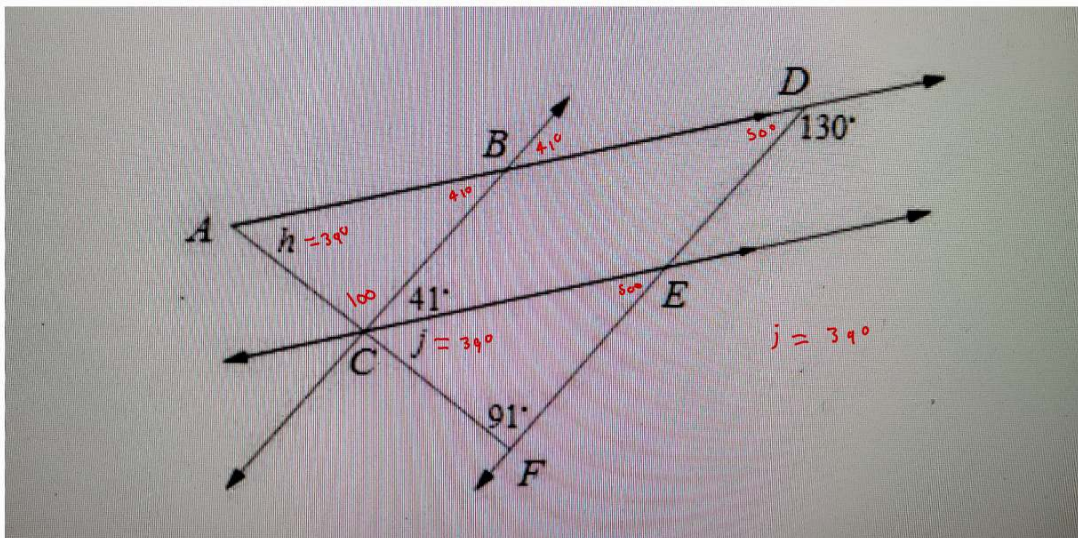
$$10x = 360^\circ$$

$$x = 36^\circ$$

10.34)



10.35)



$$h = 39^\circ$$

$$j = 39^\circ$$

10.38)

$$\frac{20}{100(7)} = 140^\circ$$