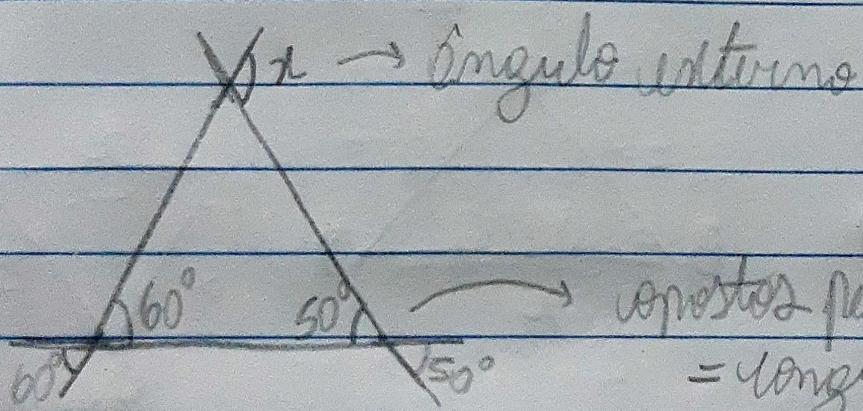


~11~

Resumo Básico - Triângulos

Nome: Bárbara O. Grosse, CT11350.

①



= congruentes

$$x = 60^\circ + 50^\circ = \boxed{110^\circ} \rightarrow \text{alternativo } \textcircled{C}$$

② Soma dos ângulos interiores = 180°
de 1º triângulo

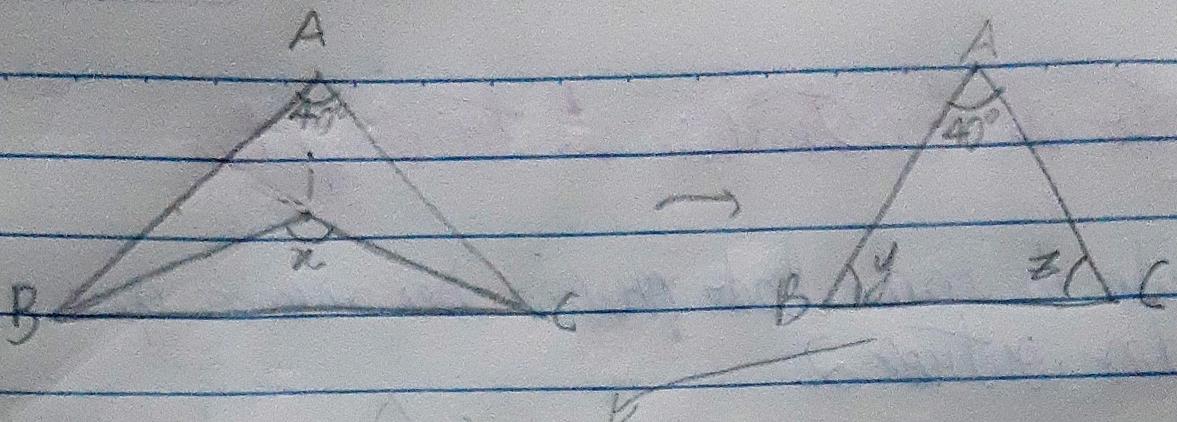
$$3x + 4x + 5x = 180^\circ$$

$$12x = 180^\circ$$

$$x = \frac{180^\circ}{12} = \boxed{15^\circ}$$

→ alternativo \textcircled{L}

③



$$\begin{array}{l} \text{Diagram: } \triangle ABC \text{ with } \angle A = 40^\circ, \angle B = y, \angle C = z. \\ \rightarrow \begin{cases} 40 + y + z = 180 \\ x + \frac{y}{2} + \frac{z}{2} = 180 \cdot (-2) \end{cases} \rightarrow \end{array}$$

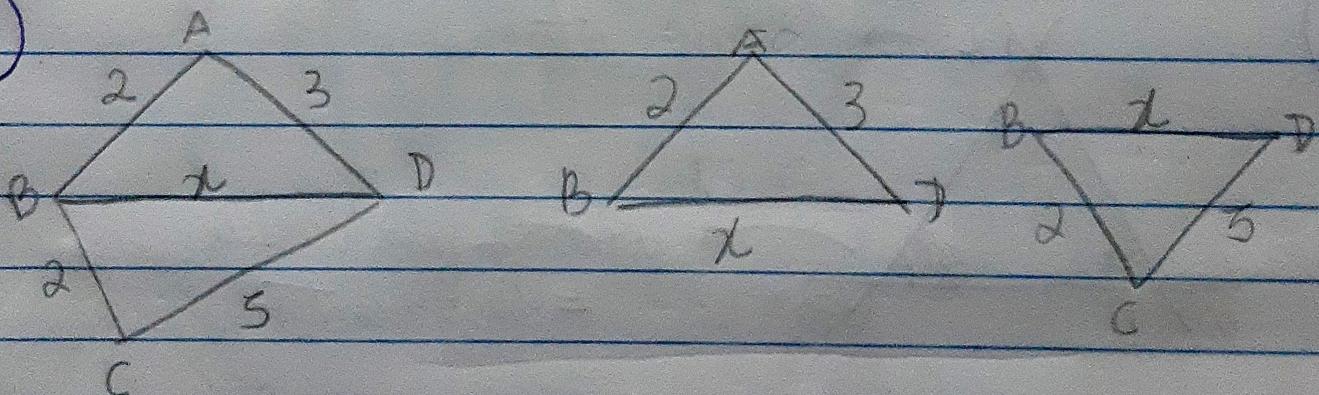
$$\begin{array}{l} \left. \begin{array}{l} \begin{cases} 40 + y + z = 180 \\ -2x - y - z = -360 \end{cases} \end{array} \right\} -2x = -220 \\ -x = \frac{-220}{-2} = 110^\circ \end{array}$$

$$40 - 2x = 180 - 360$$

$$-2x = -180 - 40$$

alternativa d)

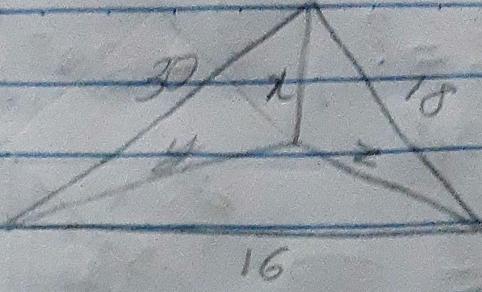
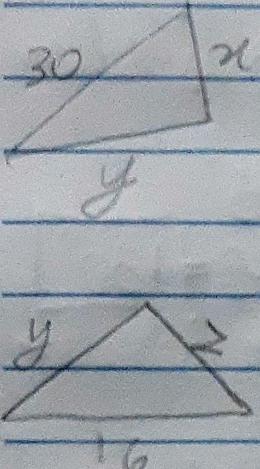
④



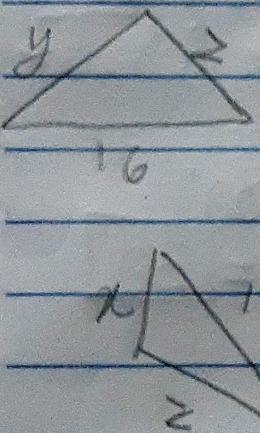
Vindilão de existência $\rightarrow ABD: x < 3+2 \rightarrow x < 5$
triângulos $\rightarrow BCD: x < 5+2 \rightarrow x < 7$

* alternativa que encaido = ① ($4 < 5 \wedge 4 < 7$)

$$\textcircled{5} \quad x + y + z = ?$$



* Condições de existência triângulos:

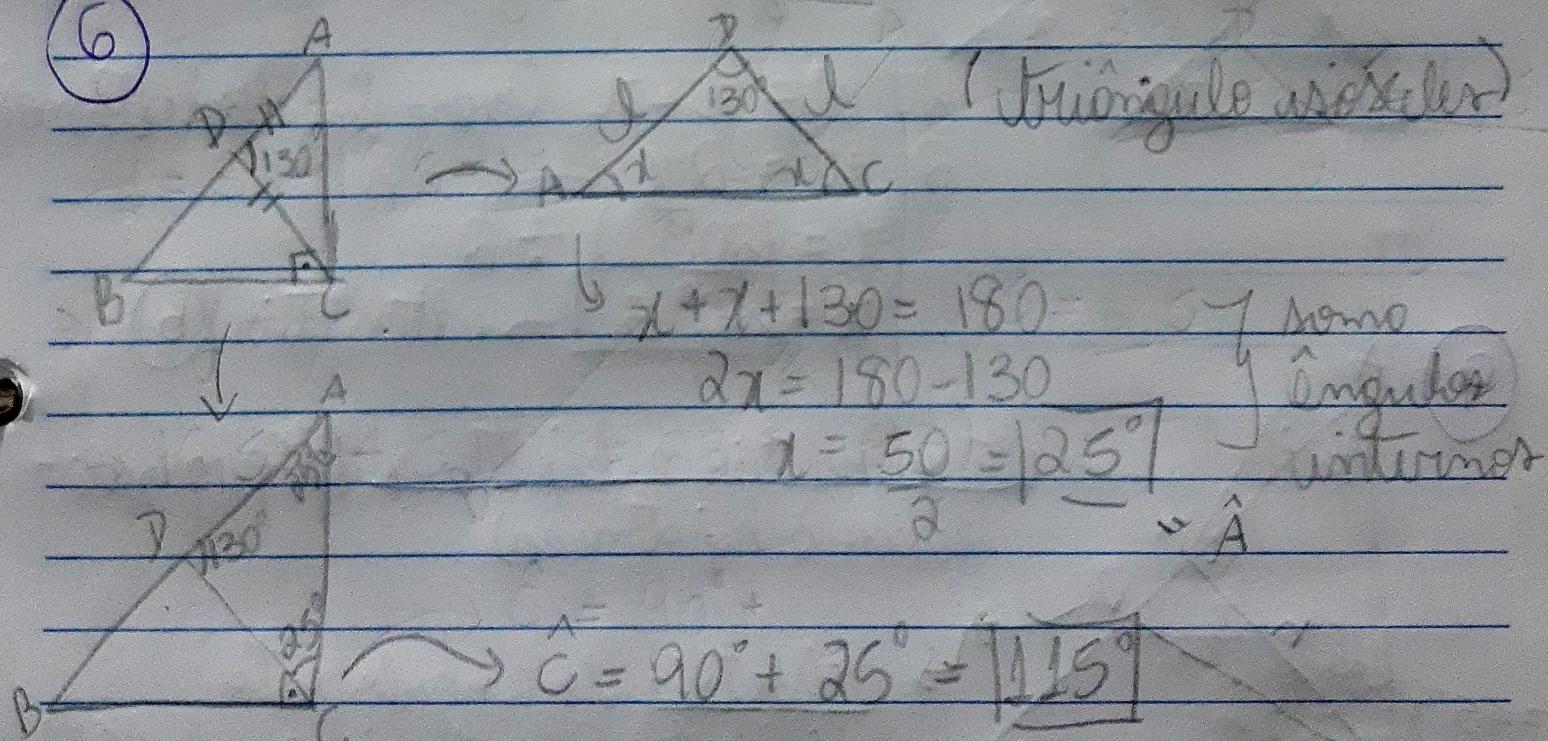


$$\begin{aligned} & 30 < x + y \\ & 16 < y + z \quad (\text{+}) \\ & 18 < x + z \end{aligned}$$

$$\begin{aligned} 30 + 16 + 18 &< x + y + y + z + z \\ 64 &< 2x + 2y + 2z \quad (\div 2) \\ 32 &< x + y + z \end{aligned}$$

→ Alternativa que se encaixa
nº ③ 33.

$$\textcircled{6}$$



$$x + y + 130 = 180$$

$$2x = 180 - 130$$

$$x = \frac{50}{2} = 25^\circ$$

→ soma
ângulos
inteiros

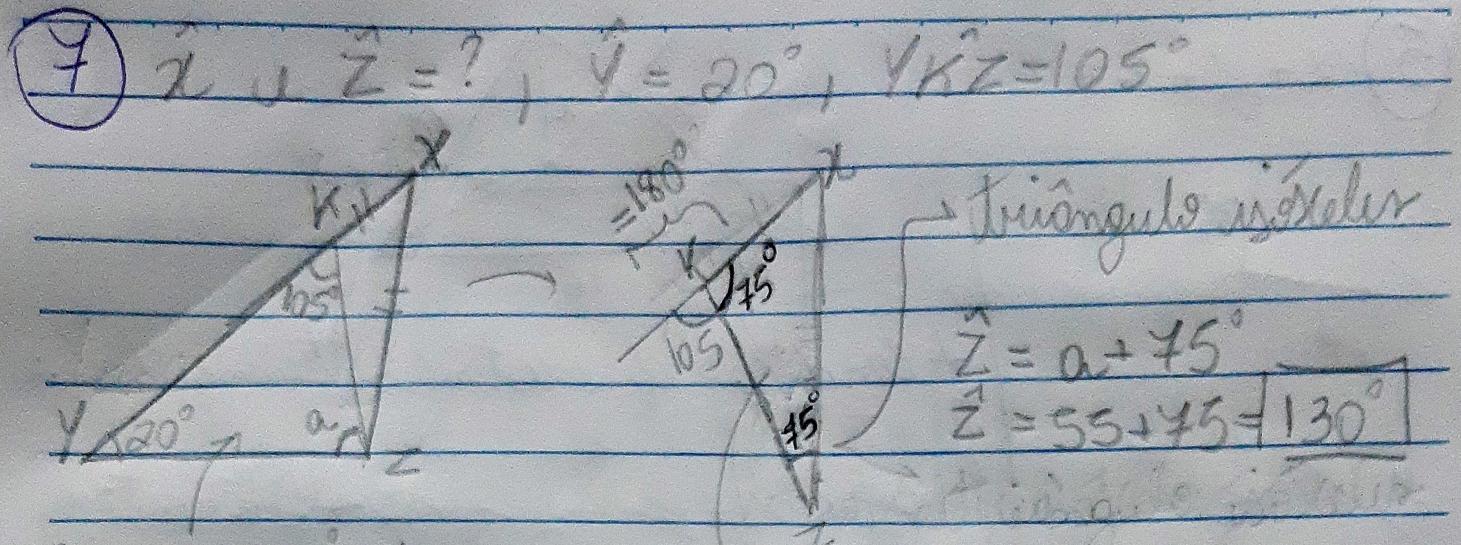
= A

$$C = 90^\circ + 25^\circ = 115^\circ$$

$$25^\circ + 115^\circ + y = 180^\circ$$

$$y = 180 - 140 = 40^\circ = B$$

Respostas = 25°, 40° e 115°.



$$20^\circ + a + 105^\circ = 180^\circ$$

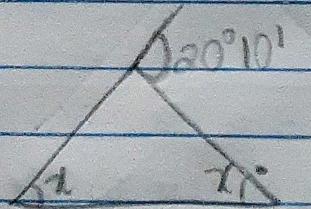
$$a = 180 - 125 = 55^\circ$$

(soma dos ângulos internos)

$$75^\circ + 75^\circ + x = 180^\circ$$

$$x = 180 - 150 = 30^\circ$$

8)



$x = \text{ângulos congruentes}$

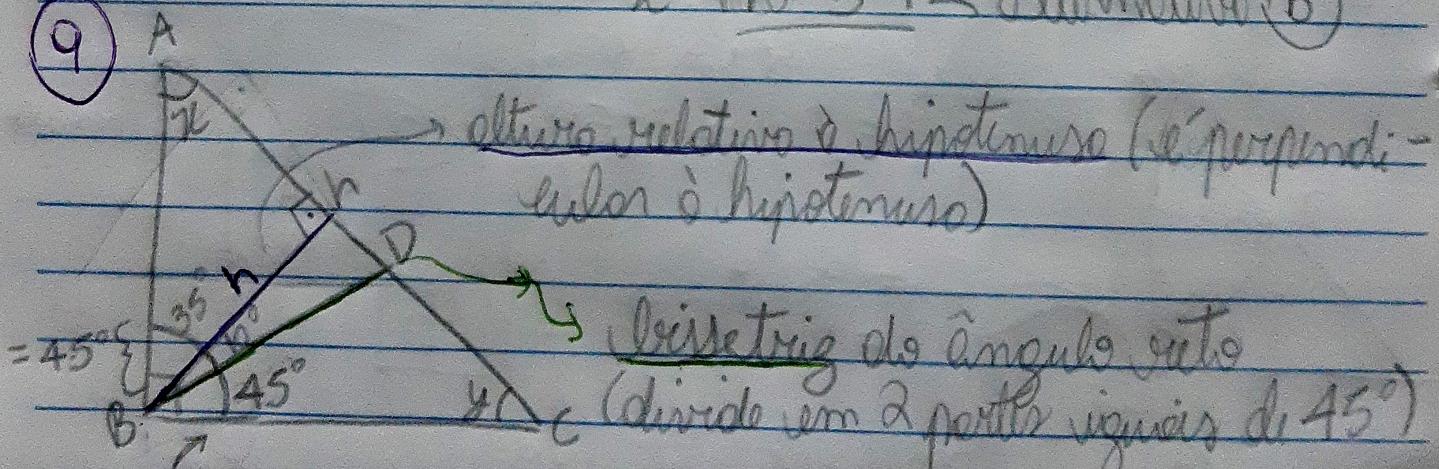
$$20^\circ 10' = x + x \quad (\text{soma dos ângulos externos})$$

$$20^\circ 10' = 2x$$

$$x = (20^\circ 10') \div 2$$

$$x = 10^\circ 5' \rightarrow \text{alternativa (b)}$$

9)



metade do ângulo reto

$$\begin{aligned} x + 90^\circ + 35^\circ &= 180^\circ \\ x = 180 - 125 &= 55^\circ \end{aligned}$$

$$\begin{aligned} 55^\circ + 90^\circ + y &= 180^\circ \\ y = 180 - 145 &= 35^\circ \end{aligned}$$

AFAPPEL