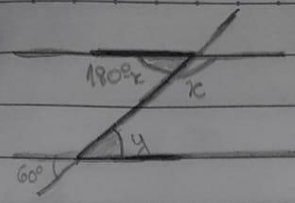


Evelyn Santos de Santana

CTII348

Geometria Plana – Conceitos Iniciais

①




$180^\circ - x$ e y são congruentes pela regra do "Z"

60° e y são congruentes

$$60^\circ = x + 180^\circ$$
$$180^\circ - 60^\circ = x$$
$$\boxed{x = 120^\circ}$$

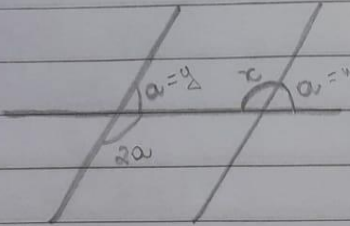
②



$y = 120^\circ - 90^\circ$
 $y = 30^\circ$

y e x são congruentes pela regra do "Z" então $x = 30^\circ$

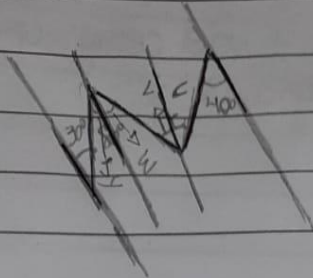
③



y e w são congruentes

$$\begin{cases} 2a + a = 180^\circ \\ 3a = 180^\circ \\ a = 180^\circ / 3 = 60^\circ \end{cases} \quad \begin{cases} x + a = 180^\circ \\ x + 60^\circ = 180^\circ \\ x = 180^\circ - 60^\circ \\ \boxed{x = 120^\circ} \end{cases}$$

④



30° e y são congruentes
pela regra do "z"

$$W = 80^\circ - y$$

$$W = 80^\circ - 30^\circ$$

V e W são congruentes
pela regra do "z"
então, $V = 50^\circ$

$$W = 50^\circ$$

$$X = V + U$$

$$X = 50^\circ + 40^\circ$$

$$X = 90^\circ$$

U e 40° são congruentes
pela regra do "z"

⑤ suplemento é $(180^\circ - x)$

$$\frac{(180^\circ - x) \cdot 5}{4} = x$$

$$5 \cdot (180^\circ - x) = 4x$$

$$900^\circ - 5x = 4x$$

$$900^\circ = 4x + 5x$$

$$900^\circ = 9x$$

$$x = \frac{900}{9}$$

$$x = 100^\circ$$

(A)

$$\textcircled{6} \text{ complemento} = 90^\circ - x$$

$$90^\circ - x = x$$

$$2$$

$$2x = 90^\circ - x$$

$$3x = 90^\circ$$

$$x = \frac{90^\circ}{3}$$

$$3$$

(A)

$$x = 30^\circ$$

$$\textcircled{7} \text{ complemento} = 90^\circ - x; \text{ suplemento} = 180^\circ - x$$

$$3(90^\circ - x) = \frac{1}{3}(180^\circ - x)$$

$$1(180^\circ - x) = 3 \cdot 3(90^\circ - x)$$

$$180^\circ - x = 9(90^\circ - x)$$

$$180^\circ - x = 810^\circ - 9x$$

$$810^\circ - 180^\circ = 9x - x$$

$$630^\circ = 8x$$

$$x = \frac{630}{8}$$

$$8$$

$$x = 78^\circ 45'$$

$$630 \overline{) 18}$$

$$56 \quad 78^\circ$$

$$70$$

$$64$$

$$6^\circ \cdot 60' \quad 360^\circ \overline{) 8}$$

$$32 \quad 45'$$

$$40$$

$$0$$

(E)