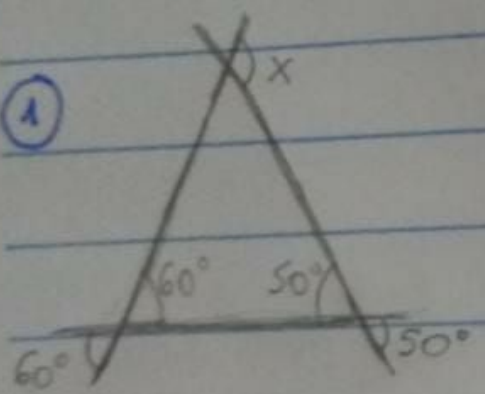
tarefa básica

TRIÂNGULOS

① 

teorema dos ângulos externos

$x = 60 + 50$

$x = 110°$ ALTERNATIVA C)

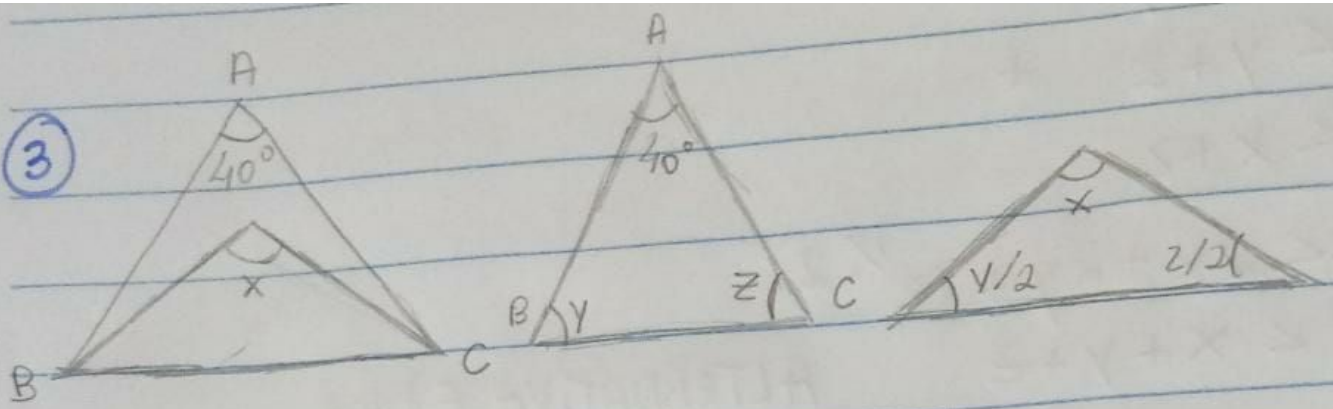
(2) soma dos ângulos internos = 180°

$3x + 4x + 5x = 180°$

$12x = 180°$

$x = \frac{180°}{12} = 15°$ ALTERNATIVA E)

(3)



$$\begin{cases} 40^\circ + y + z = 180^\circ \\ x + y/2 + z/2 = 180^\circ \cdot (-2) \end{cases}$$

$$\begin{cases} 40^\circ + y + z = 180^\circ \\ -2x - y - z = -360^\circ \end{cases}$$

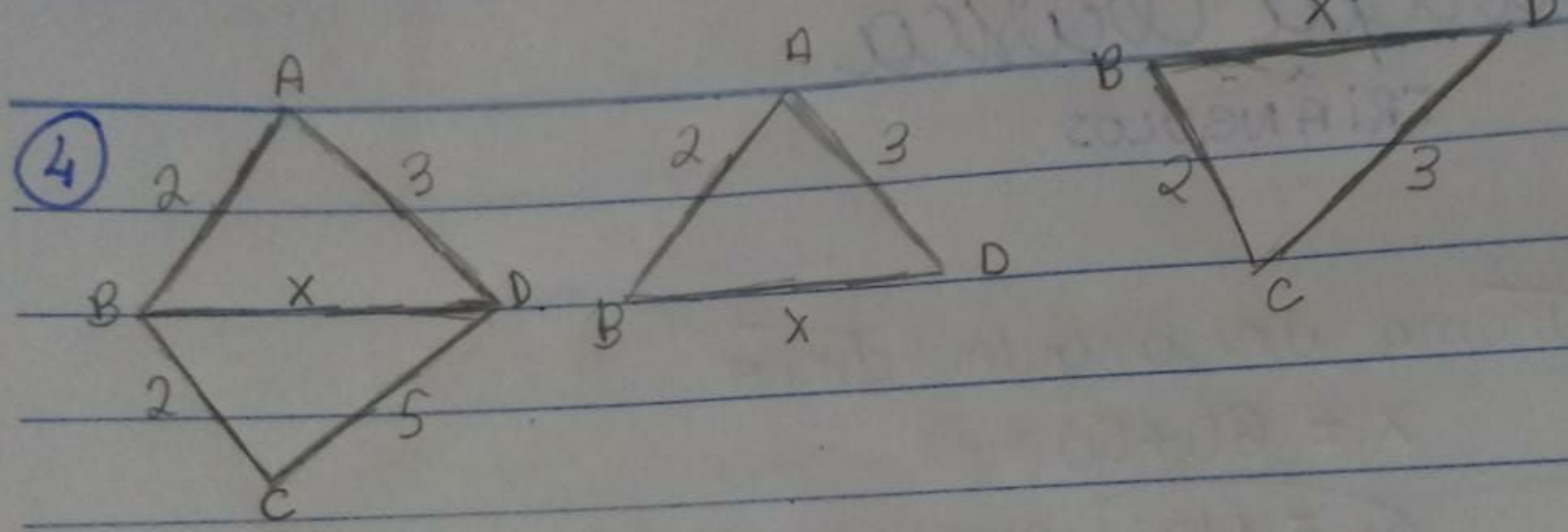
$$40^\circ - 2x = 180^\circ - 360^\circ$$

$$-2x = -180^\circ - 40^\circ$$

$$-2x = -220$$

$$x = \frac{-220}{-2} = 110^\circ$$ ALTERNATIVA D)

④



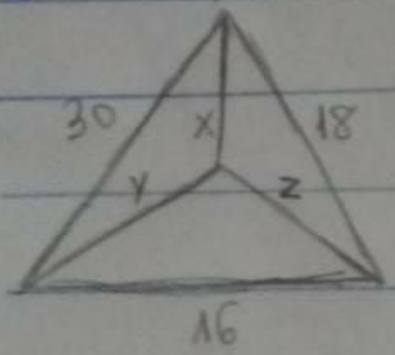
→ condição de existência

ABC: $x < 3+2 \rightarrow x < 5$

BCD: $x < 5+2 \rightarrow x < 7$

Alternativa E) 4 ($4 < 5$ e $4 < 7$)

(5) $x+y+z=?$



condição de existência

$$\begin{cases} 30 < x+y \\ 16 < y+z \\ 18 < x+z \end{cases} +$$

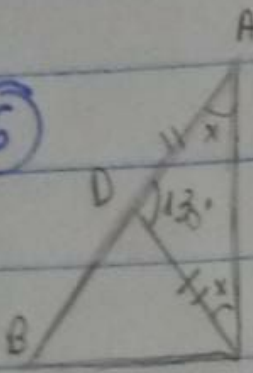
$64 < 2x+2y+2z$ ÷ 2

$32 < x+y+z$

ALTERNATIVA E) 33

A

⑥



$x + x + 130^\circ = 180^\circ$

$2x = 180^\circ - 130^\circ$

$2x = 50^\circ$

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

$\hat{C} = 90^\circ + 25^\circ$

$\hat{C} = 115^\circ$

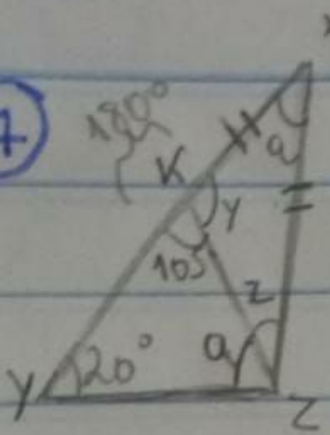
$25^\circ + 115^\circ + y = 180^\circ$

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

$y = 40^\circ \rightarrow \hat{B} = 40^\circ$

$\hat{A} = 25^\circ, \hat{B} = 40^\circ, \hat{C} = 115^\circ.$

(7)



$180° - 105° = y$

$y = 75°$

$a = x + 75°$

$a = 55° + 75°$

$a = 130°$

$20° + a + 105° = 180°$

$\hat{x} = 180° - 125°$

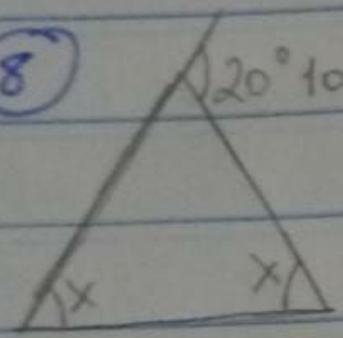
$\hat{x} = 55°$

$75° + 75° + \hat{x} = 180°$

$\hat{x} = 180° - 150°$

$\hat{x} = 30°$

(8)



ângulos congruos

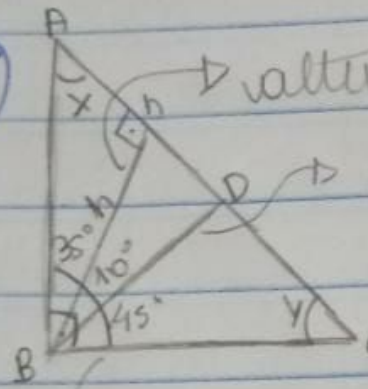
$20°10' = x + x$

$20°10' = 2x$

$x = \frac{20°10'}{2}$

$x = 10°5'$ ALTERNATIVA B)

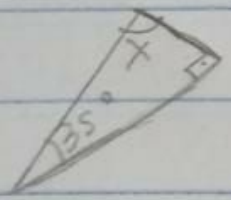
(9)



▷ altura relativa à hipotenusa

▷ bissetriz do ângulo reto

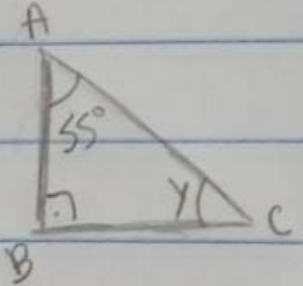
metade do ângulo reto



$x + 90° + 35° = 180°$

$x = 180° - 125°$

$x = 55°$



$55° + 90° + y = 180°$

$y = 180° - 145°$

$y = 35°$