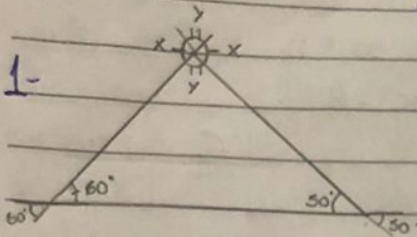


Tarefa Básica

1-



$$60^\circ + 50^\circ + y = 180^\circ$$

$$110 + y = 180^\circ$$

$$y = 180 - 110$$

$$y = 70^\circ$$

$$70^\circ + 70^\circ + 2x = 360^\circ$$

$$140 + 2x = 360^\circ$$

$$2x = 360^\circ - 140^\circ$$

$$2x = 220$$

$$x = \frac{220}{2} = 110$$

C

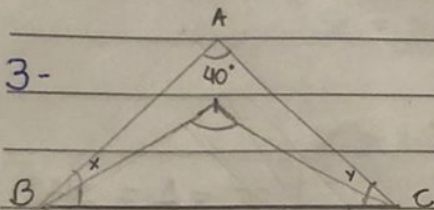
$$2- 3x + 4x + 5x = 180^\circ$$

$$12x = 180^\circ$$

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

E

3-



B=C, por conta das diagonais, então

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

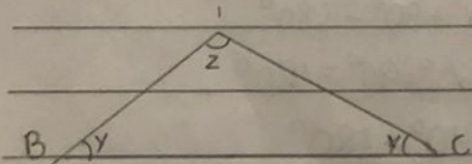
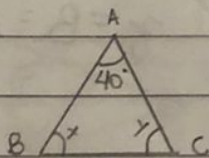
$$40 + 2x = 180^\circ$$

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

$$2x = 140^\circ$$

$$x = \frac{140^\circ}{2} = 70^\circ$$

2



$$z + y + y = 180^\circ$$

$$z + 2y = 180^\circ$$

$$z + 2 \cdot 35^\circ = 180^\circ$$

$$z + 70^\circ = 180^\circ$$

$$z = 180^\circ - 70^\circ$$

$$z = 110^\circ$$

D

B e C são metade de

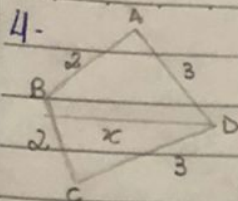
B e C, então

$$y = \frac{70^\circ}{2} = 35^\circ$$

2

___/___/___

S T Q Q S S D



$$BAD = 12 - 31 < x < 12 + 3$$

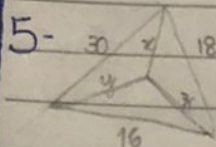
$$1 < x < 5$$

$$BCD = 12 - 51 < x < 12 + 5$$

$$3 < x < 7$$

$$\begin{cases} 3 < x < 5 \\ x = 4 \end{cases}$$

E



$$30 < y + x$$

$$+ 18 < x + z$$

$$16 < y + z$$

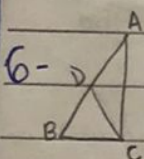
$$x + y + z = ?$$

$$64 < 2y + 2x + 2z \quad | :2$$

$$32 < y + x + z$$

E

A soma obrigatoriamente tem que ser maior que 32, então a resposta é 33.



• quais são os ângulos de A, B e C?

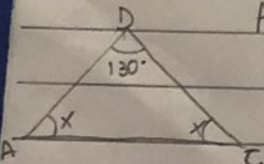
AD e CD são congruentes

CD e BC são perpendiculares

$$\angle ADC = 130^\circ$$

$$x = A = 25^\circ$$

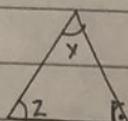
$$y = B = 40^\circ$$



$$D + y = 180^\circ$$

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

$$y = 180^\circ - 130^\circ$$



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

$$y = 50^\circ$$

$$z + y + 90^\circ = 180^\circ$$

$$130^\circ + 2x + 180^\circ$$

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

$$z + 50^\circ + 90^\circ = 180^\circ$$

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

$$25^\circ + 40^\circ + C = 180^\circ$$

$$z + 140^\circ = 180^\circ$$

$$2x = 50^\circ$$

$$65^\circ + C = 180^\circ$$

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

$$x = 50^\circ = 25^\circ$$

$$C = 180^\circ - 65^\circ$$

$$z = 40^\circ$$

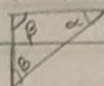
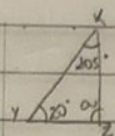
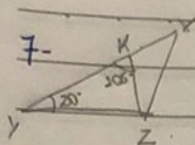
$$2$$

$$C = 115^\circ$$

$$A = 25^\circ$$

$$B = 40^\circ$$

$$C = 115^\circ$$



$$\beta + \beta + \alpha = 180^\circ$$

$$150^\circ + \alpha = 180^\circ$$

$$\alpha = 180^\circ - 150^\circ$$

$$\alpha = 30^\circ$$

ângulo de X e Z

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

$$\hat{Y} = 20^\circ$$

$$125^\circ + \alpha = 180^\circ$$

$$\hat{YKZ} = 105^\circ$$

$$\alpha = 180^\circ - 125^\circ$$

XZ e XK são congruentes $\alpha = 55^\circ$

$$105^\circ + \beta = 180^\circ$$

$$Z = \alpha + \alpha$$

$$\beta = 180^\circ - 105^\circ$$

$$Z = 55 + 75$$

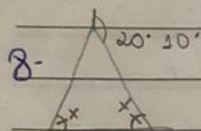
$$X = 30^\circ$$

$$X = \alpha$$

$$\beta = 75^\circ$$

$$Z = 130^\circ$$

$$Z = 130^\circ$$



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

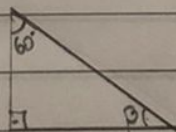
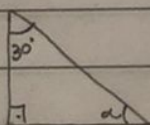
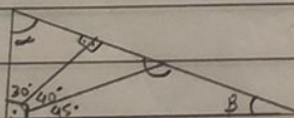
$$20^\circ 10' = 2x$$

$$x = \frac{20^\circ 10'}{2}$$

$$x = 10^\circ 5'$$

$$x = 10^\circ 5'$$

9-



$$90^\circ + 30^\circ + \alpha = 180^\circ$$

$$120^\circ + \alpha = 180^\circ$$

$$\alpha = 180^\circ - 120^\circ$$

$$\alpha = 60^\circ$$

$$\beta + 60^\circ + 90^\circ = 180^\circ$$

$$\beta + 150^\circ = 180^\circ$$

$$\beta = 180^\circ - 150^\circ$$

$$\beta = 30^\circ$$