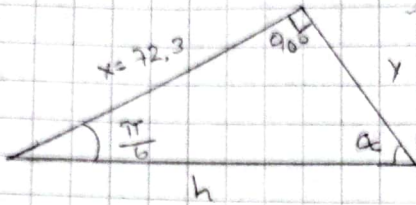


Jhan Carlos Durango Gomez

Evaluacion #6.

36)



$\theta = 30^\circ$ $\alpha = 60^\circ$

$x = 72,3$ $y = 41,74$ $h = 83,48$

$\tan \theta = \frac{y}{x}$

$x \tan \theta = y$

$72,3 \tan 30 = y$

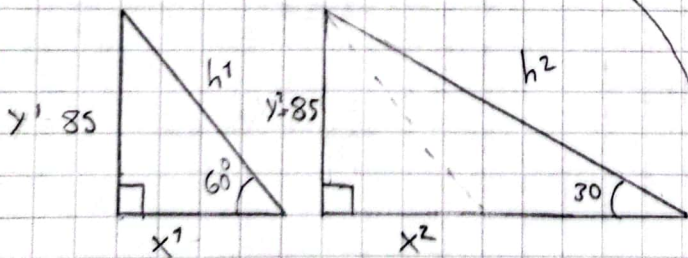
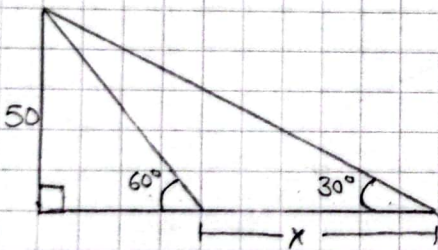
$41,74 = y$

$\cos \theta = \frac{x}{h}$

$h = \frac{x}{\cos \theta}$

$h = \frac{72,3}{\cos 30} \rightarrow h = 83,48$

42)



$x^1 = 49,07$

$x^2 = 147,22$

$x = x^2 - x^1$

$x = 98,15$

$\theta = 60^\circ$ $y^1 = 85$

$\theta = 30^\circ$ $y^2 = 85$

$\cot 60 = \frac{x^1}{85}$

$\cot 30 = \frac{x^2}{85}$

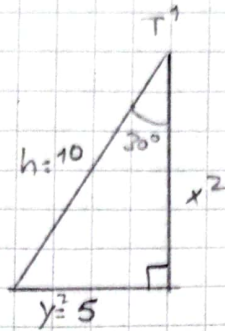
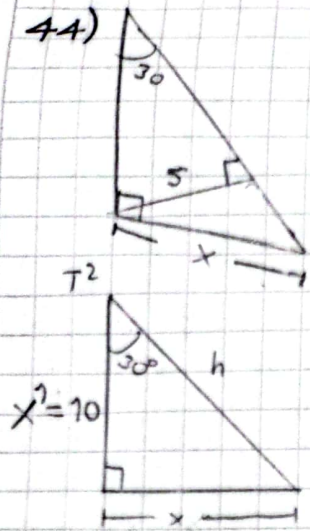
$85 \cot 60 = x^1$

$85 \cot 30 = x^2$

$49,07 = x^1$

$147,22 = x^2$

44)



$$\tan \theta = \frac{x}{x'}$$

$$\tan 30^\circ = \frac{x}{10}$$

$$10 \tan 30^\circ = x$$

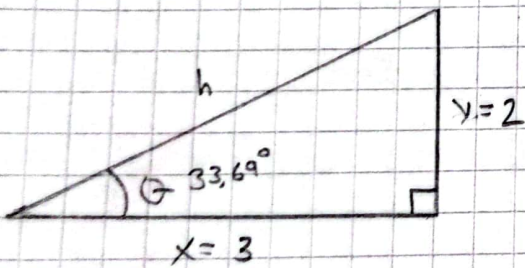
$$5,77 = x$$

$$\text{Sen } 30^\circ = \frac{5}{h}$$

$$h = \frac{5}{\text{Sen } 30^\circ}$$

$$h = 10 \rightarrow x'$$

3)



$$\tan \theta = \frac{y}{x}$$

$$\tan \theta = \frac{2}{3}$$

$$\theta = 33,69$$

$$\text{Sen } \theta = \frac{y}{h}$$

$$h = \frac{y}{\text{Sen } \theta}$$

$$h = \frac{2}{33,69}$$

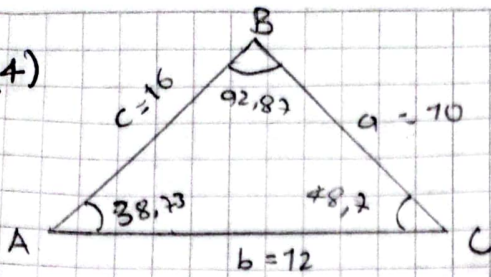
$$h = 3,6$$

$$\tan \theta = 0,66$$

$$\text{Sen } \theta = 0,55$$

$$\text{Sen } \theta + \tan \theta = 1,21$$

14)



$$a^2 = (b^2 + c^2) - (2bc \cdot \cos A)$$

$$10^2 = (12^2 + 16^2) - (2 \cdot 12 \cdot 16 \cdot \cos A)$$

$$100 = (400) - (384 \cdot \cos A)$$

$$\frac{-300}{-384} = \frac{-384 \cdot \cos A}{-384}$$

$$\cos A = \frac{300}{384}$$

$$\cos A = 0,78'$$

$$A = 38,73$$

$$b^2 = (a^2 + c^2) - (2ac \cdot \cos B)$$

$$144 = (356) - (320 \cdot \cos B)$$

$$\frac{-212}{-320} = \frac{-320 \cdot \cos B}{-320}$$

$$\cos B = \frac{212}{320}$$

$$\cos B = 0,66$$

$$B = 48,7$$

$$c^2 = (a^2 + b^2) - (2ab \cdot \cos C)$$

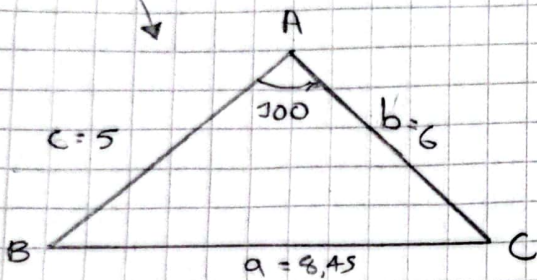
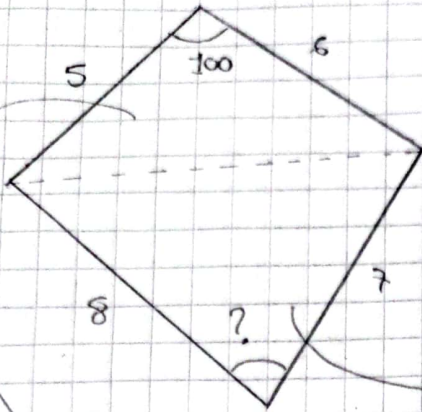
$$256 = (244) - (240 \cdot \cos C)$$

$$\frac{12}{-240} = \frac{-240 \cdot \cos C}{-240}$$

$$\cos C = -0,05$$

$$C = 92,86$$

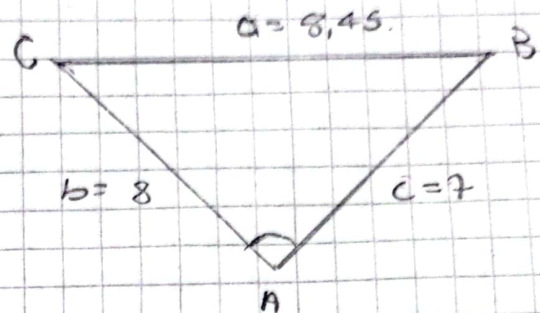
s)



$$a^2 = (b^2 + c^2) - (2bc \cdot \cos A)$$

$$a^2 = (6^2 + 5^2) - (2(6)(5) \cdot \cos(100))$$

$$a = 8,45$$



$$a^2 = (b^2 + c^2) - (2bc \cdot \cos A)$$

$$8,45^2 = (8^2 + 7^2) - (2(8)(7) \cdot \cos A)$$

$$71,40 = (64 + 49) - (112 \cdot \cos A)$$

$$71,40 = \frac{113}{-113} - (112 \cdot \cos A)$$

$$\frac{41,6}{-112} = \frac{-112 \cdot \cos A}{-112}$$

$$\cos A = 0,37$$

$$A = 68,28$$