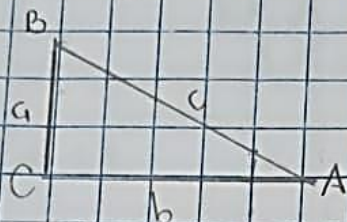


Diego Roberto Cuéllar Meléndez

45. Encuentra los elementos del siguiente triángulo rectángulo y anota cada respuesta.



45.  $\angle A = 25^\circ$  y  $c = 15 \text{ cm}$

Respuesta.

$$\cos(25^\circ) = \frac{b}{15} = 13.59 \text{ cm}$$

$$\angle A = 25^\circ$$

$$\sin(25^\circ) = \frac{a}{15} = 6.33 \text{ cm}$$

$$\angle B = 65^\circ$$

$$\angle C = 90^\circ$$

$$180^\circ - (25^\circ + 90^\circ) = 65^\circ$$

$$c = 15 \text{ cm}$$

$$b = 13.59 \text{ cm}$$

$$a = 6.33 \text{ cm}$$

46.  $\angle B = 48^\circ$  y  $a = 7 \text{ cm}$

$$\tan(48^\circ) = \frac{b}{7} = 7.77 \text{ cm}$$

$$\angle A = 42^\circ$$

$$\angle B = 48^\circ$$

$$\angle C = 90^\circ$$

$$c^2 = 7^2 + 7.77^2$$

$$c^2 = 7^2 + 60.43$$

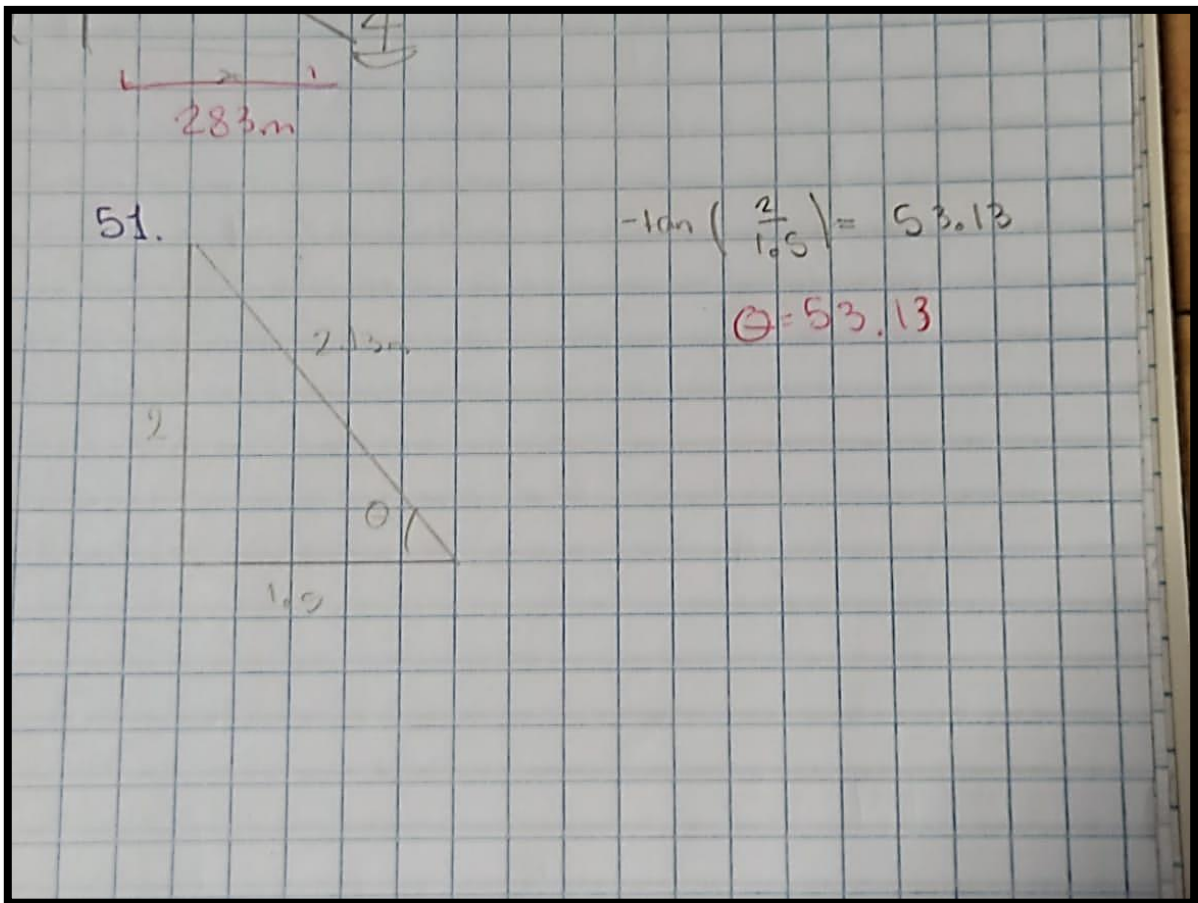
$$\sqrt{c^2} = \sqrt{109}$$

$$c = 10.46$$

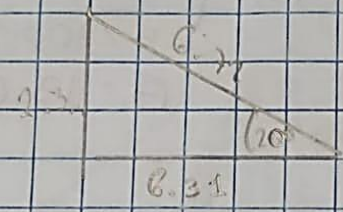
$$a = 7 \text{ cm}$$

$$b = 7.77 \text{ cm}$$

$$c = 10.46 \text{ cm}$$



62



$2.3 \div \tan(20) = 6.3191$

$\sqrt{2.3^2 + 6.31^2} = 6.72$

$6.72 + 2.3 \text{ m} = 9.02 \text{ m}$

R1 9.02



47  $b = 8\text{cm}$  y  $c = 10\text{cm}$

$a^2 = 10^2 - 8^2$

$a = \sqrt{10^2 - 8^2}$

$a = \sqrt{35}$

$C = 90^\circ$

$B = 53.13^\circ$

$A = 36.87^\circ$

$a = 6\text{cm}$

$b = 8\text{cm}$

$c = 10\text{cm}$

$\sin^{-1}\left(\frac{\sqrt{35}}{10}\right) = 36.87^\circ$

$\sin^{-1}\left(\frac{8}{10}\right) = 53.13^\circ$

48  $a = 234\text{cm}$  y  $c = 342\text{cm}$

$c^2 = 342^2 - 234^2$

$\sqrt{c^2} = \sqrt{62208}$

$c = 249.41$

$C = 90^\circ$

$A = 43.17^\circ$

$B = 46.82^\circ$

$a = 234\text{cm}$

$b = 249.41$

$c = 342\text{cm}$

$\tan^{-1}\left(\frac{234}{249.41}\right)$

$43.17^\circ$

$\sin^{-1}\left(\frac{234}{342}\right)$

$46.82^\circ$

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la altura del edificio  
↓ sin la altura de José

54  $\tan 40 = \frac{x}{10} = 8.39 + 1.74 = 10.13\text{m}$

Respuesta:

La altura del edificio es 10.13m

↑ la altura de José

55  $x = \frac{2.8\text{m}}{\sin A}$

$x = \frac{2.8\text{m}}{\sin A}$

56  $\sin(50^\circ) = \frac{70}{x} = \frac{70}{\sin(50^\circ)} = 91.37\text{cm}$

$91\text{cm} - 62\text{cm}$

$29.4\text{cm}$

R // 29.4cm

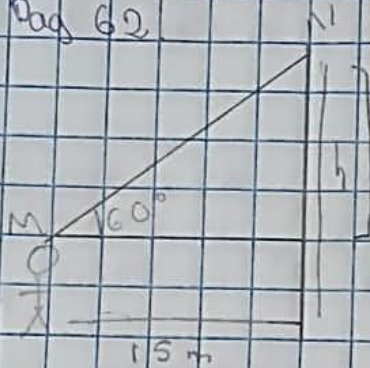
↑ la hipotenusa total

↑ la parte que le faltaba

↑ lo que faltaba

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$$\tan(60^\circ) \cdot x = 25.98$$

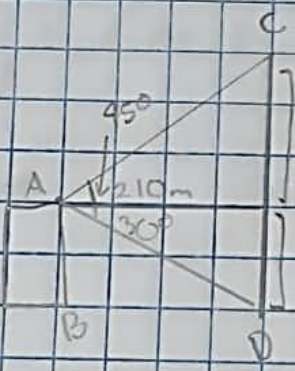
$$25.98 + 1.81 = 27.79m$$

↑ la altura no completa  
↑ altura del personaje

Alt 27.79m

↑ altura completa

64.



$$\tan(30^\circ) \cdot x = 210$$

$$\tan(45^\circ) = \frac{x}{210}$$

$$210\sqrt{3} = 121.24m + 210m = 331.24m$$



