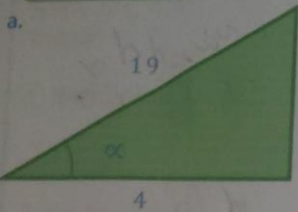




1 Hallar las razones trigonométricas.



$$\text{Sen } \alpha = \frac{9}{19} = 0,47$$

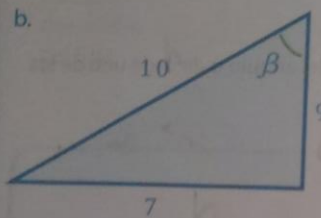
$$\text{Csc } \alpha = \frac{19}{9} = 2,11$$

$$\text{Cos } \alpha = \frac{4}{19} = 0,21$$

$$\text{Sec } \alpha = \frac{19}{4} = 4,75$$

$$\text{Tan } \alpha = \frac{9}{4} = 2,25$$

$$\text{Cot } \alpha = \frac{4}{9} = 0,44$$



$$\text{Sen } \beta = \frac{7}{10} = 0,7$$

$$\text{Csc } \beta = \frac{10}{7} = 1,42$$

$$\text{Cos } \beta = \frac{9}{10} = 0,9$$

$$\text{Sec } \beta = \frac{10}{9} = 1,11$$

$$\text{Tan } \beta = \frac{7}{9} = 0,77$$

$$\text{Cot } \beta = \frac{9}{7} = 1,28$$

1 Realizar las siguientes operaciones.

a) $\text{Cot } 30^\circ + \text{Tan } 30^\circ$

$$\frac{\sqrt{3}}{3} + \frac{1}{\sqrt{3}} = \frac{\sqrt{3} \cdot 3 + 3}{3} = \frac{3\sqrt{3} + 3}{3}$$

c) $\text{Sen } 30^\circ + \text{Cos } 30^\circ$

$$\frac{1}{2} + \frac{\sqrt{3}}{2} = \frac{1 + \sqrt{3}}{2}$$

e) $\text{Cot } 60^\circ + \text{Csc } 60^\circ$

$$\frac{\sqrt{3}}{3} + \frac{2\sqrt{3}}{3} = \sqrt{3}$$

b) $\text{Sec } 30^\circ \cdot \text{Cot } 60^\circ$

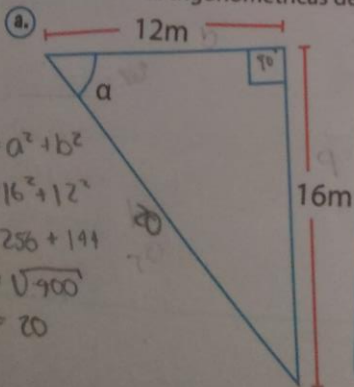
$$\frac{2\sqrt{3}}{3} \cdot \frac{1}{\sqrt{3}} = \frac{2}{3}$$

d) $\text{Cos } 60^\circ + \text{Tan } 45^\circ$

$$\frac{1}{2} + 1 = \frac{1 + 2}{2} = \frac{3}{2}$$



2 Halla las razones trigonométricas del ángulo alpha en cada triángulo rectángulo.



$$h^2 = a^2 + b^2$$

$$h^2 = 16^2 + 12^2$$

$$h^2 = 256 + 144$$

$$h^2 = \sqrt{400}$$

$$h = 20$$

$$\text{sen}(a) = \frac{16}{20} = 0,8$$

$$\text{cos}(a) = \frac{12}{20} = 0,6$$

$$\text{tan}(a) = \frac{16}{12} = 1,33$$

$$\text{Csc} = \frac{20}{16} = 1,25$$

$$\text{cot}(a) = \frac{12}{16} = 0,75$$

$$\text{Sec}(a) = \frac{20}{12} = 1,66$$

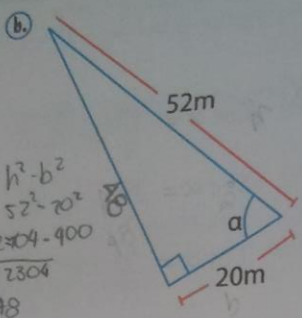
$$a^2 = h^2 - b^2$$

$$a^2 = 52^2 - 20^2$$

$$a^2 = 2704 - 400$$

$$a^2 = \sqrt{2304}$$

$$a = 48$$



$$\text{Sen}(a) = \frac{48}{52} = 0.92$$

$$\text{Cos}(a) = \frac{20}{52} = 0.38$$

$$\text{tan}(a) = \frac{48}{20} = 2.4$$

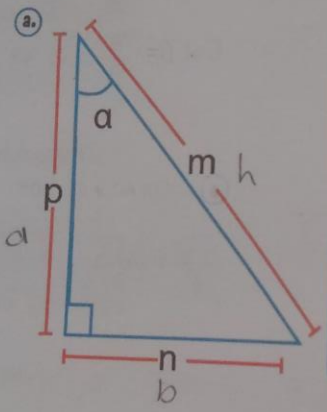
$$\text{cot}(a) = \frac{20}{48} = 0.41$$

$$\text{sec}(a) = \frac{52}{20} = 2.6$$

$$\text{csc}(a) = \frac{52}{48} = 1.08$$

3. Escribe, en función de m, n y p, el seno, el coseno y la tangente del ángulo a de cada uno de los triángulos rectángulos que se muestran a continuación.

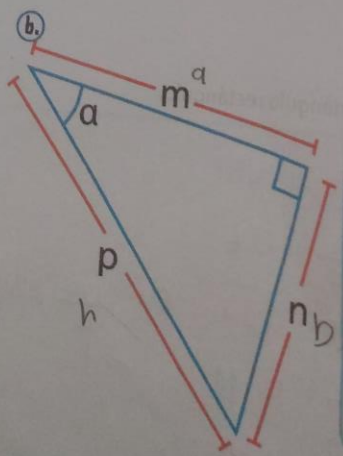
48



$$\text{sen}(a) = \frac{p}{m}$$

$$\text{cos}(a) = \frac{n}{m}$$

$$\text{tan}(a) = \frac{p}{n}$$



$$\text{sen}(a) = \frac{p}{m}$$

$$\text{cos}(a) = \frac{n}{m}$$

$$\text{tan}(a) = \frac{p}{n}$$

Hay diferen
ados, 3/7
trazado e

Isóscel

Entre las
Campos
dos prim
del Este.

ara viajar
ngulo de

(a) . Et

Del trián

- (a) Ta
- (b) El
- (c) L
- (d) F