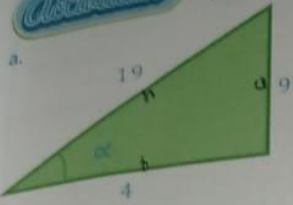
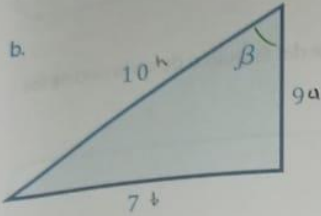




1 Hallar las razones trigonométricas.



$$\begin{aligned} \text{Sen } \alpha &= \frac{a}{h} = \frac{9}{19} = 0,47 & \text{Csc } \alpha &= \frac{h}{a} = \frac{19}{9} = 2,11 \\ \text{Cos } \alpha &= \frac{b}{h} = \frac{4}{19} = 0,21 & \text{Sec } \alpha &= \frac{h}{b} = \frac{19}{4} = 4,75 \\ \text{Tan } \alpha &= \frac{a}{b} = \frac{9}{4} = 2,25 & \text{Cot } \alpha &= \frac{b}{a} = \frac{4}{9} = 0,44 \end{aligned}$$



$$\begin{aligned} \text{Sen } \beta &= \frac{a}{h} = \frac{9}{10} = 0,9 & \text{Csc } \beta &= \frac{h}{a} = \frac{10}{9} = 1,11 \\ \text{Cos } \beta &= \frac{b}{h} = \frac{7}{10} = 0,7 & \text{Sec } \beta &= \frac{h}{b} = \frac{10}{7} = 1,42 \\ \text{Tan } \beta &= \frac{a}{b} = \frac{9}{7} = 1,28 & \text{Cot } \beta &= \frac{b}{a} = \frac{7}{9} = 0,77 \end{aligned}$$

1 Realizar las siguientes operaciones.

a) $\text{Cot } 30^\circ + \text{Tan } 30^\circ$
 $\text{Cot } (30^\circ) = \sqrt{3}$
 $\text{Tan } (30^\circ) = \frac{\sqrt{3}}{3} = \sqrt{3} + \frac{\sqrt{3}}{3}$

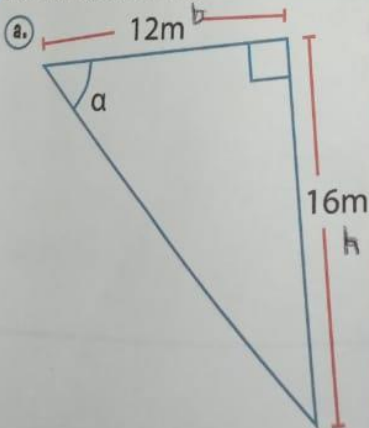
c) $\text{Sen } 30^\circ + \text{Cos } 30^\circ$
 $\text{Sen } (30^\circ) = \frac{1}{2}$
 $\text{Cos } (30^\circ) = \frac{\sqrt{3}}{2} = \frac{1}{2} + \frac{\sqrt{3}}{2}$

e) $\text{Cot } 60^\circ + \text{Csc } 60^\circ$
 $\text{Cot } (60^\circ) = \frac{\sqrt{3}}{3}$
 $\text{Csc } (60^\circ) = \frac{\sqrt{3}}{2}$

b) $\text{Sec } 30^\circ \cdot \text{Cot } 60^\circ$
 $\text{Cos } (30^\circ) = \frac{\sqrt{3}}{2}$
 $\text{Cot } (60^\circ) = \frac{\sqrt{3}}{3} = \frac{\sqrt{3}}{2} \cdot \frac{\sqrt{3}}{3}$

d) $\text{Cos } 60^\circ + \text{Tan } 45^\circ$
 $\text{Cos } (60^\circ) = \frac{1}{2}$
 $\text{Tan } (45^\circ) = 1 = \frac{1}{2} + 1$

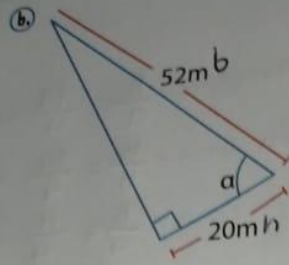
2 Halla las razones trigonométricas del ángulo alpha en cada triángulo rectángulo.



Sen

$$\text{Cos} = \frac{b}{h} = \frac{12}{16} = \frac{3}{4}$$

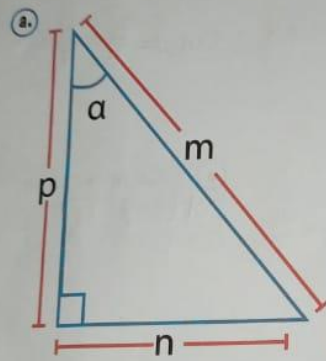
$$\text{Sec} = \frac{h}{b} = \frac{16}{12} = \frac{1}{\cos(\frac{4}{3})}$$



$$\cos \frac{b}{h} = \frac{13}{5}$$

$$\sec \frac{h}{b} = \frac{5}{13}$$

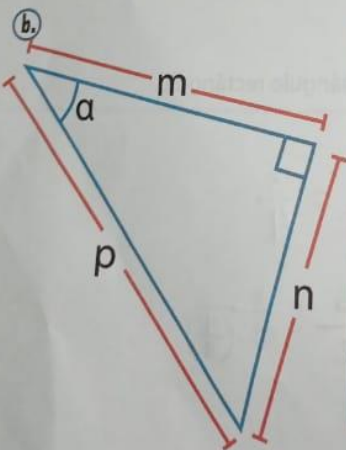
3. Escribe, en función de m , n y p , el seno, el coseno y la tangente del ángulo α de cada uno de los triángulos rectángulos que se muestran a continuación.



$$\cos(\alpha) = p/m$$

$$\text{Sen}(\alpha) = n/m$$

$$\text{Tan}(\alpha) = n/p$$



$$\cos(\alpha) = m/p$$

$$\text{Sen}(\alpha) = n/p$$

$$\text{Tan}(\alpha) = n/m$$

