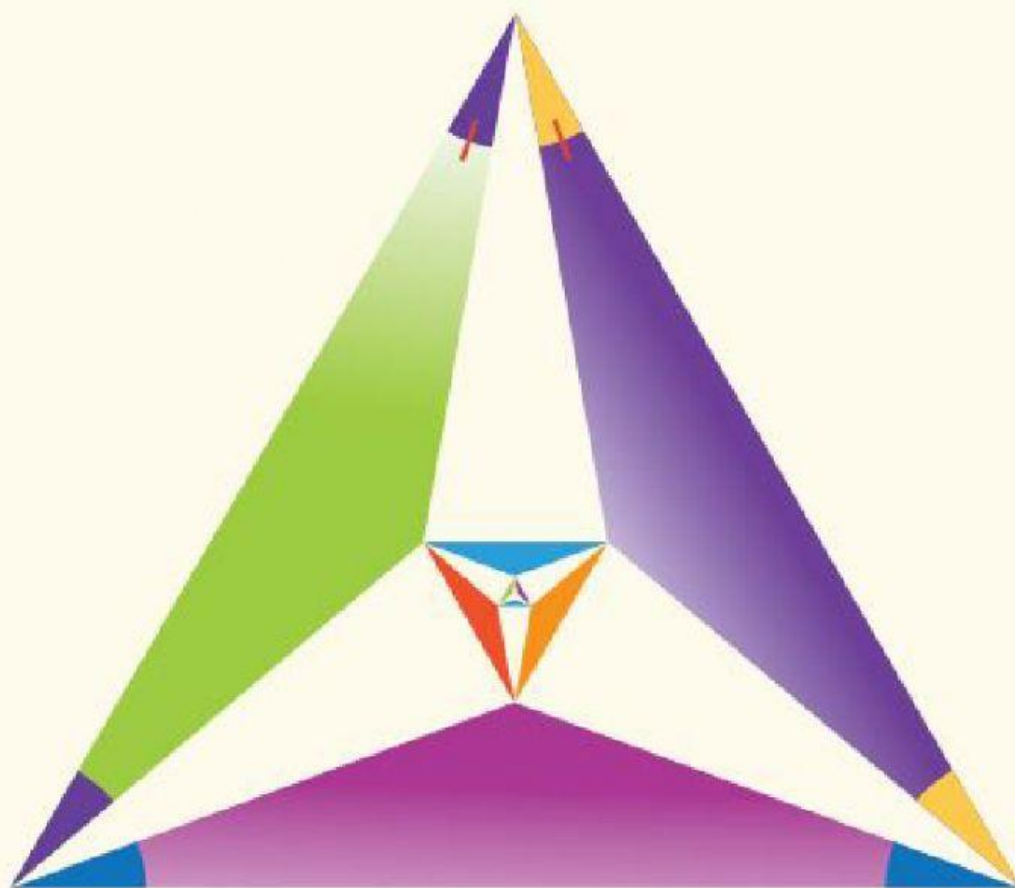




Matemática

Primer año de bachillerato



Sugerencia Metodológica
Tomo 2



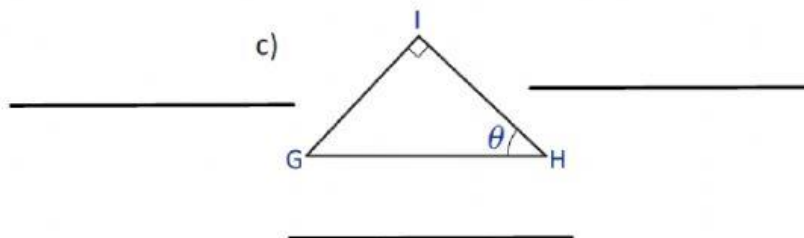
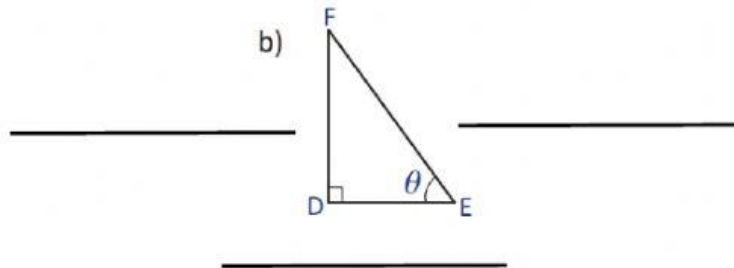
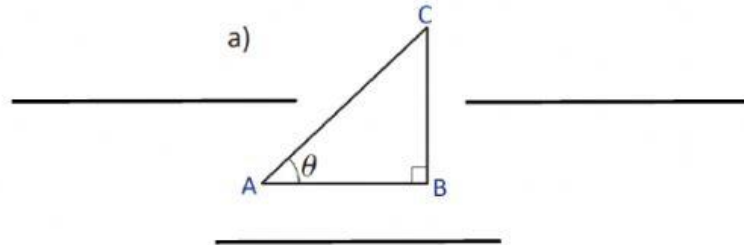
The logo for LIVEWORKSHEETS, featuring the word "LIVE" in a small, colorful font (L is green, I is blue, V is red, E is yellow) followed by "WORKSHEETS" in a blue, sans-serif font.

COLOQUE LOS NOMBRES CORRECTOS

Problemas

En un triángulo rectángulo, el lado que se opone al ángulo de 90° se conoce como **hipotenusa** y los dos lados que forman dicho ángulo se conocen como **catetos**. Además, la hipotenusa es el lado de mayor longitud.

Identifica la hipotenusa, el lado opuesto y adyacente del ángulo θ y expresa las razones trigonométricas para cada caso.

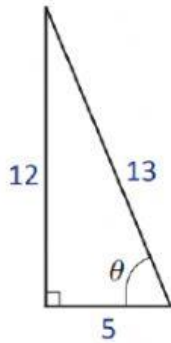


ESCOJA LA RESPUESTA CORRECTA

Problemas

1. Para cada uno de los siguientes triángulos, calcula las razones trigonométricas $\sin \theta$, $\cos \theta$, y $\tan \theta$. Simplifica o racionaliza cuando sea posible.

a)



a) $\sin \frac{\text{hip}}{\text{op}} = \frac{13}{12}$

a) $\cos \frac{\text{ady}}{\text{op}} = \frac{5}{12}$

a) $\tan \frac{\text{ady}}{\text{op}} = \frac{5}{12}$

b) $\sin \frac{\text{ady}}{\text{op}} = \frac{5}{12}$

b) $\cos \frac{\text{ady}}{\text{hip}} = \frac{5}{13}$

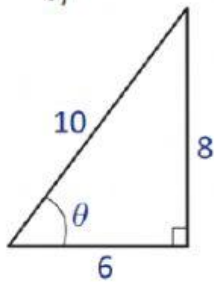
b) $\tan \frac{\text{op}}{\text{hip}} = \frac{12}{13}$

c) $\sin \frac{\text{op}}{\text{hip}} = \frac{12}{13}$

c) $\cos \frac{\text{hip}}{\text{ady}} = \frac{13}{5}$

c) $\tan \frac{\text{op}}{\text{ady}} = \frac{12}{5}$

b)



a) $\sin \frac{\text{hip}}{\text{op}} = \frac{10}{8}$

a) $\cos \frac{\text{ady}}{\text{hip}} = \frac{6}{10}$

a) $\tan \frac{\text{ady}}{\text{hip}} = \frac{6}{10}$

b) $\sin \frac{\text{op}}{\text{hip}} = \frac{8}{10}$

b) $\cos \frac{\text{op}}{\text{hip}} = \frac{8}{10}$

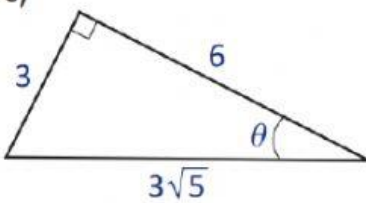
b) $\tan \frac{\text{op}}{\text{ady}} = \frac{8}{6}$

c) $\sin \frac{\text{op}}{\text{ady}} = \frac{8}{6}$

c) $\cos \frac{\text{hip}}{\text{ady}} = \frac{10}{6}$

c) $\tan \frac{\text{hip}}{\text{op}} = \frac{10}{8}$

c)



a) $\sin \frac{\text{op}}{\text{hip}} = \frac{3}{3\sqrt{5}}$

a) $\cos \frac{\text{hip}}{\text{ady}} = \frac{3\sqrt{5}}{6}$

a) $\tan \frac{\text{ady}}{\text{hip}} = \frac{6}{3\sqrt{5}}$

b) $\sin \frac{\text{hip}}{\text{ady}} = \frac{3\sqrt{5}}{6}$

b) $\cos \frac{\text{op}}{\text{hip}} = \frac{3}{3\sqrt{5}}$

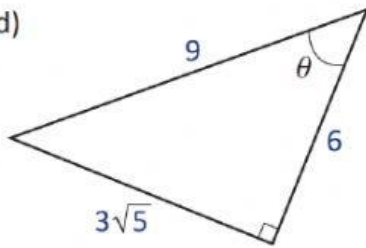
b) $\tan \frac{\text{op}}{\text{hip}} = \frac{3}{3\sqrt{5}}$

c) $\sin \frac{\text{op}}{\text{ady}} = \frac{3}{6}$

c) $\cos \frac{\text{ady}}{\text{hip}} = \frac{6}{3\sqrt{5}}$

c) $\tan \frac{\text{op}}{\text{ady}} = \frac{3}{6}$

d)



a) $\sin \frac{op}{hip} = \frac{3\sqrt{5}}{9}$

a) $\cos \frac{hip}{ady} = \frac{9}{6}$

a) $\tan \frac{ady}{hip} = \frac{6}{9}$

b) $\sin \frac{hip}{ady} = \frac{9}{6}$

b) $\cos \frac{op}{hip} = \frac{3\sqrt{5}}{9}$

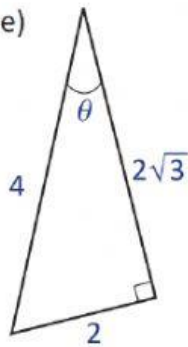
b) $\tan \frac{op}{hip} = \frac{3\sqrt{5}}{9}$

c) $\sin \frac{ady}{hip} = \frac{6}{9}$

c) $\cos \frac{ady}{hip} = \frac{6}{9}$

c) $\tan \frac{op}{ady} = \frac{3\sqrt{5}}{6}$

e)



a) $\sin \frac{ady}{hip} = \frac{2\sqrt{3}}{4}$

a) $\cos \frac{hip}{ady} = \frac{9}{6}$

a) $\tan \frac{ady}{op} = \frac{2\sqrt{3}}{2}$

b) $\sin \frac{hip}{ady} = \frac{4}{2\sqrt{3}}$

b) $\cos \frac{ady}{hip} = \frac{2\sqrt{3}}{4}$

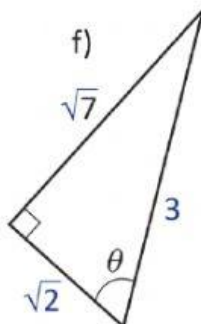
b) $\tan \frac{op}{hip} = \frac{2}{4}$

c) $\sin \frac{op}{hip} = \frac{2}{4}$

c) $\cos \frac{ady}{op} = \frac{2\sqrt{3}}{2}$

c) $\tan \frac{op}{ady} = \frac{2}{2\sqrt{3}}$

f)



a) $\sin \frac{ady}{hip} = \frac{\sqrt{2}}{3}$

a) $\cos \frac{hip}{ady} = \frac{3}{\sqrt{2}}$

a) $\tan \frac{ady}{op} = \frac{\sqrt{2}}{\sqrt{7}}$

b) $\sin \frac{op}{hip} = \frac{\sqrt{7}}{3}$

b) $\cos \frac{op}{hip} = \frac{\sqrt{7}}{3}$

b) $\tan \frac{op}{ady} = \frac{\sqrt{7}}{\sqrt{2}}$

c) $\sin \frac{op}{ady} = \frac{\sqrt{7}}{\sqrt{2}}$

c) $\cos \frac{ady}{hip} = \frac{\sqrt{2}}{3}$

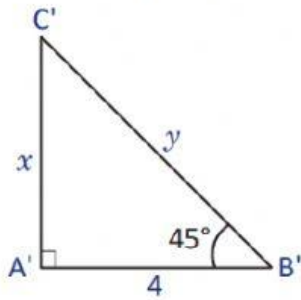
c) $\tan \frac{hip}{ady} = \frac{3}{\sqrt{2}}$

TRACE UNA LINEA A LA RESPUESTA CORRECTA

Problemas

Encuentra el valor de x y y en cada triángulo.

a)



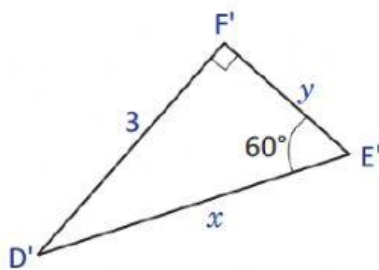
x •

- 4
- 3
- 5

y •

- $4\sqrt{2}$
- $4\sqrt{3}$
- $2\sqrt{4}$

b)



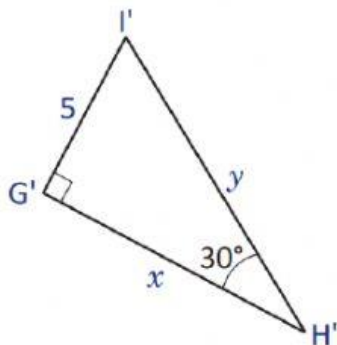
x •

- $3\sqrt{2}$
- $2\sqrt{3}$
- $2\sqrt{2}$

y •

- $\sqrt{1}$
- $\sqrt{9}$
- $\sqrt{3}$

c)



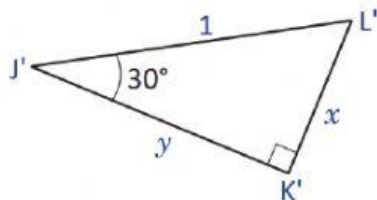
x •

- $10\sqrt{6}$
- $3\sqrt{5}$
- $5\sqrt{3}$

y •

- 5
- 10
- 7

d)



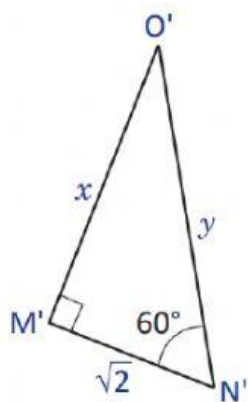
x •

- 0.5
- 3.5
- 1.5

y •

- 0.5
- 1
- 0.86

e)



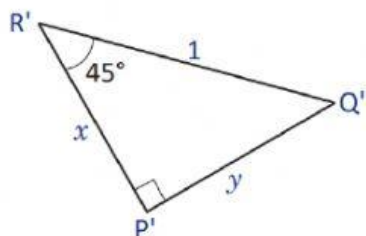
x •

- $\sqrt{2}$
- $\sqrt{3}$
- $\sqrt{6}$

y •

- $5\sqrt{2}$
- $2\sqrt{3}$
- $2\sqrt{2}$

f)



x •

- 0.7
- 0.9
- 0.55

y •

- 0.1
- 0.7
- 0.33