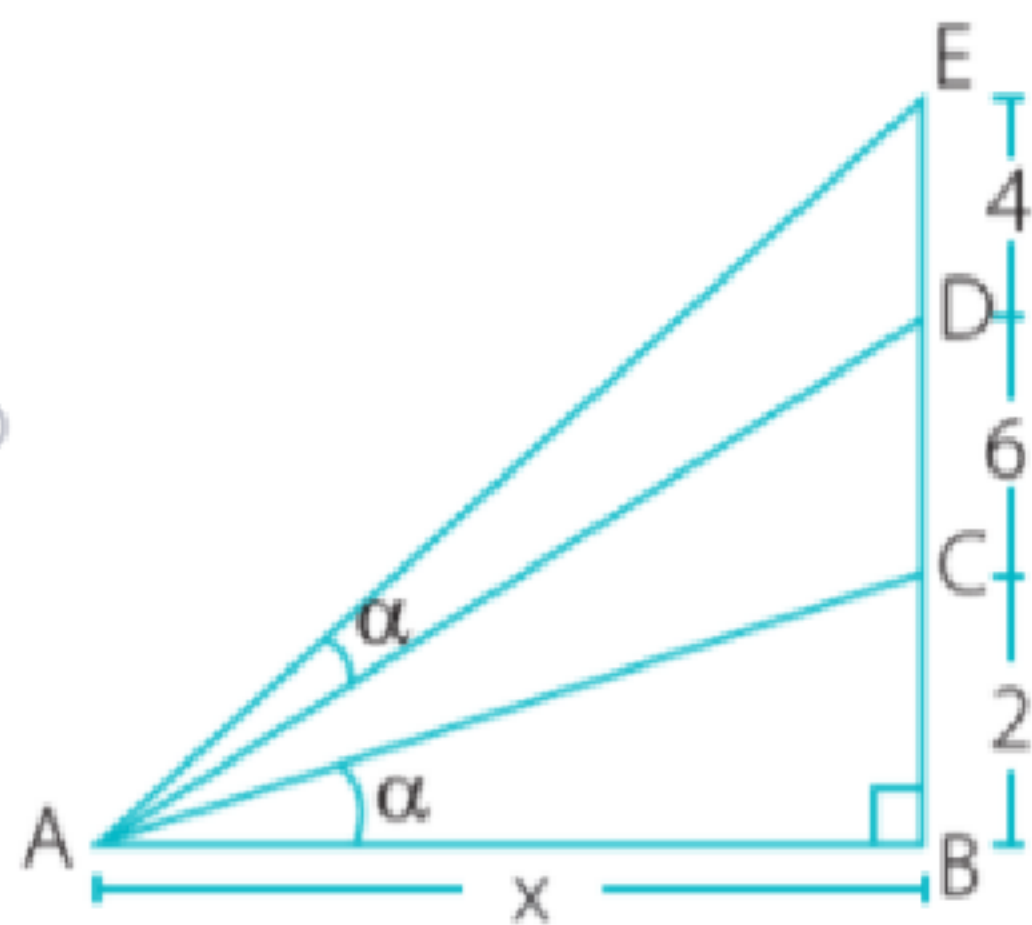


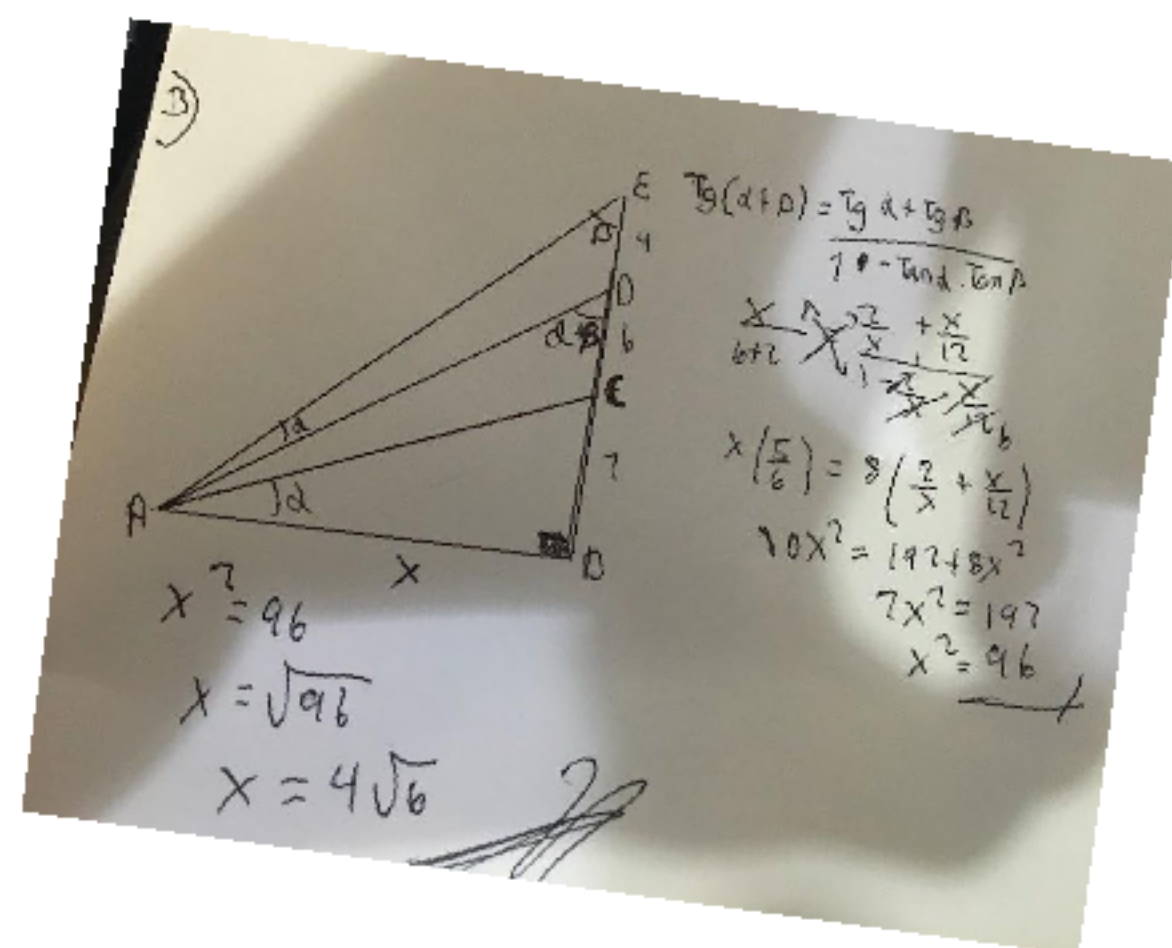
Calcula $\text{tg}\theta$ en el gráfico mostrado.



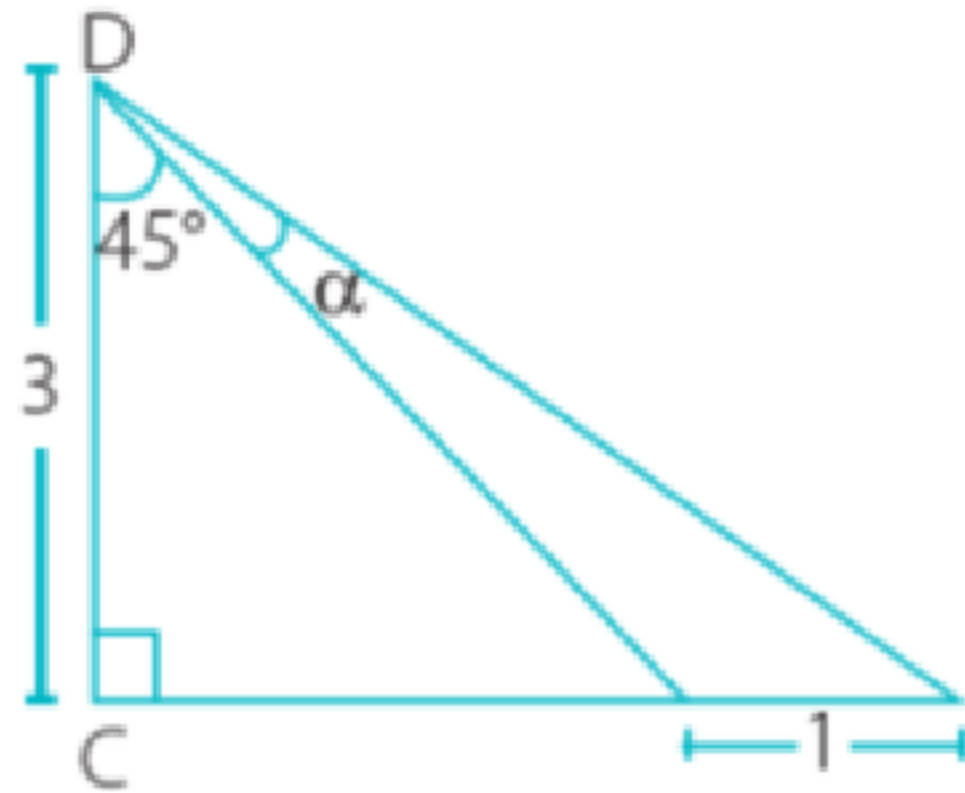
Del gráfico mostrado, calcula el valor de "x".



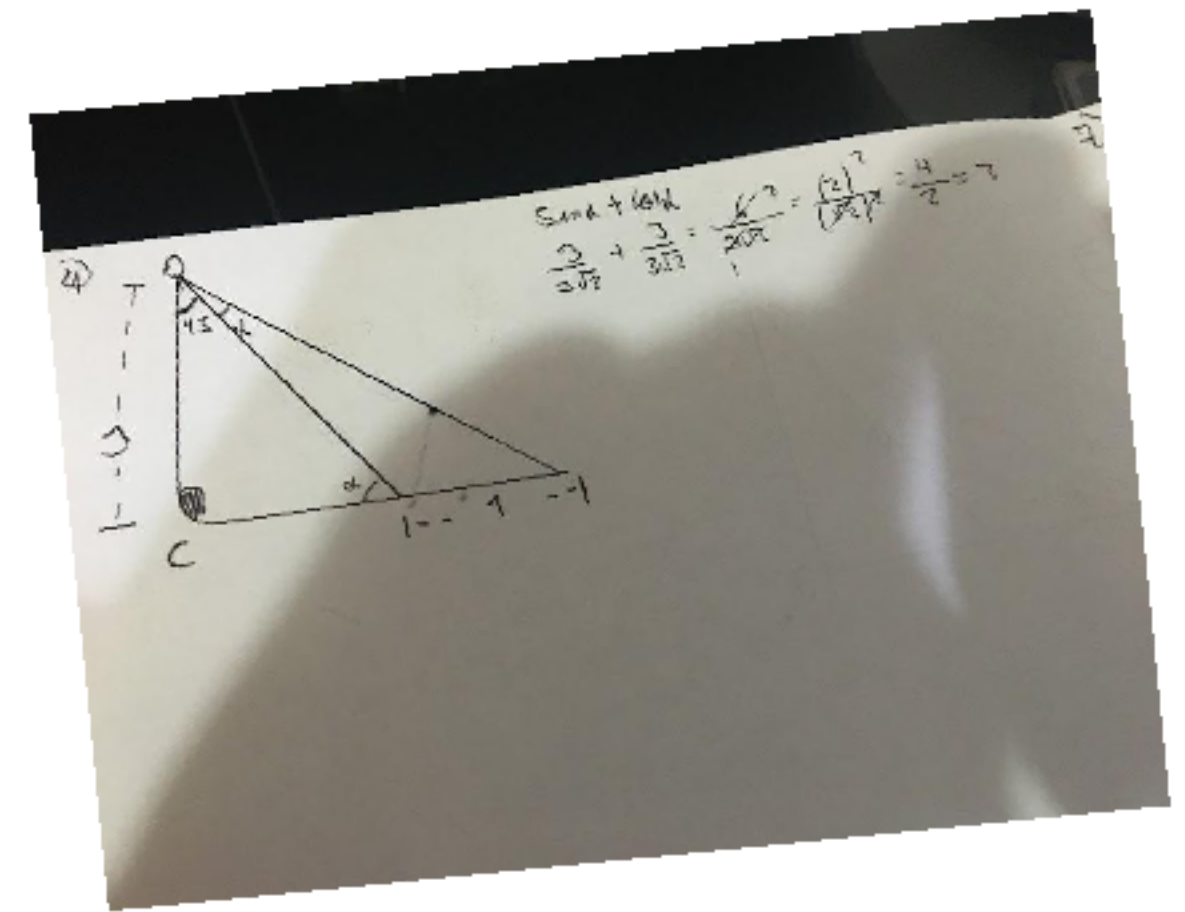
- a. $4\sqrt{3}$
- b. $4\sqrt{6}$
- c. $3\sqrt{6}$
- d. $8\sqrt{6}$
- e. $6\sqrt{3}$



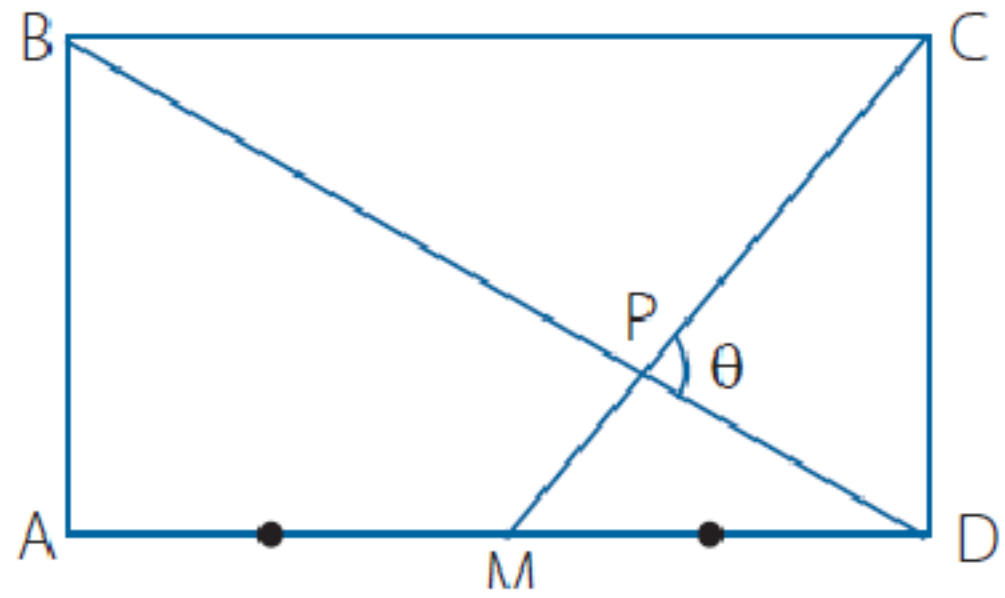
En la figura mostrada, calcula $\operatorname{sen}\alpha + \operatorname{cos}\alpha$.



- a. 3
- b. 4
- c. 2
- d. $5\sqrt{2}/3$
- e. $2\sqrt{2}/3$



Calcula el valor de $\text{tg } \theta$ en la figura mostrada.



- a. 7
- b. 8
- c. 10
- d. 12
- e. 15

Calcula:

$$\frac{\tan 65^\circ - \tan 25^\circ}{\tan 40^\circ}$$

6)

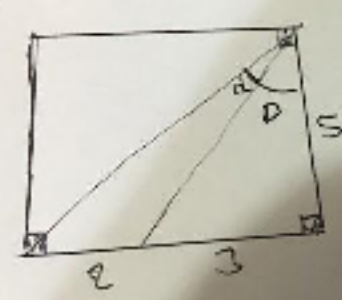
$$\frac{\tan 65 - \tan 25}{\tan 40} = \frac{\tan(65 - 25)}{\tan 40} = \frac{a}{b}$$

a) $\frac{\tan 65 - \tan 25}{1 + \tan 65 \cdot \tan 25}$

b) $= \tan 40$

$$\tan 40 = \frac{\tan 65 - \tan 25}{1 + \tan 65 \cdot \tan 25}$$
$$1 + \tan 65 \cdot \tan 25 = \frac{\tan 65 - \tan 25}{\tan 40}$$
$$1 + 1 = \frac{\tan 65 - \tan 25}{\tan 40}$$
$$2 = \frac{\tan 65 - \tan 25}{\tan 40}$$

7)


$$\tan(\alpha + \beta) = \frac{\tan \alpha + \tan \beta}{1 - \tan \alpha \cdot \tan \beta} \rightarrow \text{cangula compuesta}$$
$$1 = \frac{\tan \alpha + \frac{1}{3}}{1 - \frac{1}{3} \tan \alpha}$$
$$\tan \alpha = \tan \alpha + \frac{1}{3}$$
$$\frac{1 - \frac{1}{3} \tan \alpha}{\tan \alpha} = \frac{1}{3}$$
$$\frac{1}{4} = \tan \alpha$$

En un triángulo ABC:

$$\frac{\tan A}{2} = \frac{\tan B}{3} = \frac{\tan C}{4}$$

Calcula: $L = \sqrt{6} \tan A + 3$

③) $\frac{\tan A}{2k} = \frac{\tan B}{3k} = \frac{\tan C}{4k} = k$

• $\tan A + \tan B + \tan C = \tan A \cdot \tan B \cdot \tan C$

$\rightarrow 2k + 3k + 4k = 2k \cdot 3k \cdot 4k$

$9k = 24k^3$

$9 = 24k^2$

$\frac{9}{24} k^2 = \frac{3}{8}$

$8k^2 = 3$

$k^2 = \frac{3}{8}$

$k = \sqrt{\frac{3}{8}}$

$L = \sqrt{6} \cdot \frac{3}{8} \cdot 2 + 3$

$L = \frac{6}{4} + 3$

$L = \frac{6+6}{2}$

$L = \frac{12}{2} = 6$

④) $\frac{\tan A}{2} = \frac{\tan B}{3} = \frac{\tan C}{4} = k$

$L = \sqrt{6} \tan A + 3$

$L = \sqrt{6} \cdot 2k + 3$

$L = \sqrt{6} \cdot 2 \left(\frac{\sqrt{3}}{\sqrt{8}} \right) + 3$

$L = \sqrt{6} \cdot \frac{\sqrt{3}}{\sqrt{8}} \cdot 2 + 3$

$L = \sqrt{6} \cdot \frac{2}{8} \cdot 2 + 3$

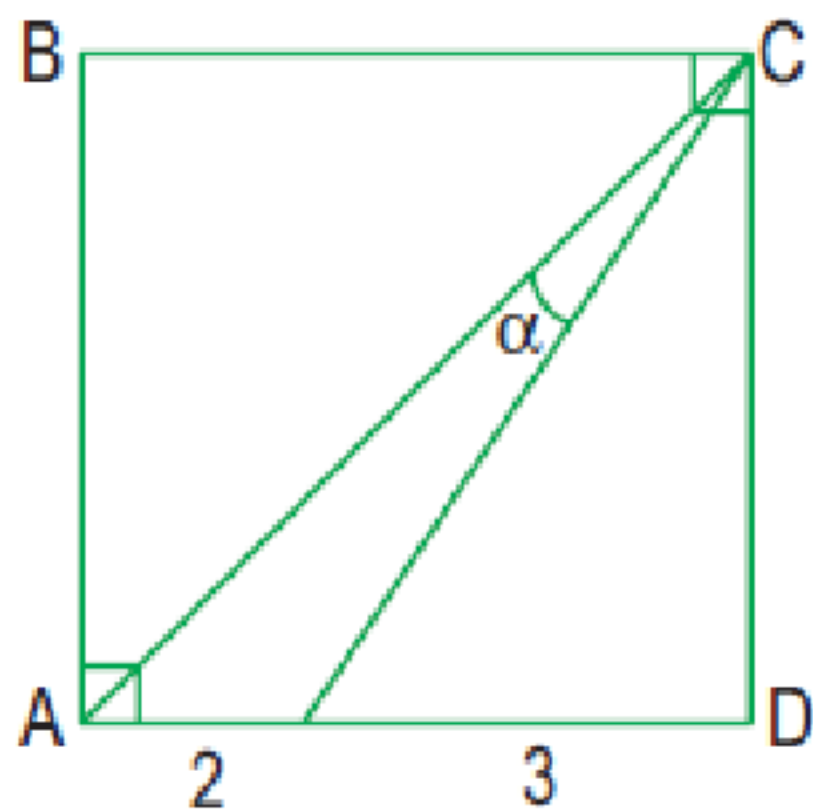
$L = \frac{\sqrt{6} \cdot 2}{4} \cdot 2 + 3$

$L = \frac{2\sqrt{6}}{2} + 3$

$L = \sqrt{6} + 3$

Si ABCD es un cuadrado, calcula: $\tan \alpha$

- A) $1/8$
- B) $1/2$
- C) $1/3$
- D) $1/4$
- E) $1/5$



Reduce:

$$E = \cos 10^\circ - \sqrt{3} \operatorname{sen} 10^\circ$$

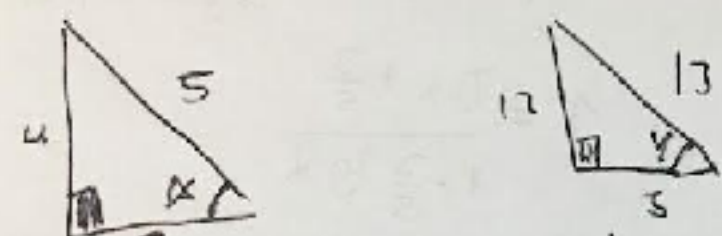
a)

$$E = \cos 10 - \sqrt{3} \operatorname{sen} 10$$
$$\frac{1}{2} E = \frac{1}{2} \cos 10 - \frac{\sqrt{3}}{2} \operatorname{sen} 10$$
$$\frac{1}{2} E = \cos 60 \cdot \cos 10 - \operatorname{sen} 60 \cdot \cos 10$$
$$\frac{1}{2} E = \cos (60 + 10)$$
$$\frac{1}{2} E = \cos 70$$
$$E = 2 \cos 70$$

Si: $\tan x = \frac{3}{4}$; $\sec y = \frac{13}{5}$; (x e $y \in \text{IC}$)

Calcula $\text{sen}(x + y)$.

10) * $x, y \in \text{IC}$



\downarrow
 $\tan x = \frac{3}{4}$

\downarrow
 $\sec y = \frac{13}{5}$

$\text{Sen}(x+y) = \text{Sen } x \cdot \text{Cos } y + \text{Cos } x \cdot \text{Sen } y$

$\frac{3}{5} \cdot \frac{5}{13} + \frac{4}{5} \cdot \frac{12}{13}$

$\frac{13}{63} + \frac{48}{63} = \frac{63}{65}$