



1. Aşağıdakilerden hangileri doğrudur?

- I) $\sin(a + b) = \sin a \cdot \cos b + \sin b \cdot \cos a$
 II) $\cos(a + b) = \cos a \cdot \cos b + \sin a \cdot \sin b$
 III) $\tan(a + b) = \frac{\tan a + \tan b}{1 - \tan a \cdot \tan b}$

- A) I B) II C) III D) I,II E) I,III



2. $\sin 75$ kaç eşittir?

(İpucu : $\sin 75 = \sin(45+30)$)

- A) $\frac{\sqrt{6} + \sqrt{3}}{4}$ B) $\frac{\sqrt{3} + \sqrt{2}}{2}$ C) $\frac{\sqrt{6} + \sqrt{2}}{4}$

- D) $\frac{\sqrt{3} + 1}{2}$ E) $\frac{\sqrt{3} - 1}{4}$



3. $\frac{\sin 50 \cdot \cos 10 - \sin 10 \cdot \cos 50}{\sin 25 \cdot \cos 15 + \cos 25 \cdot \sin 15}$ kaç eşittir?

- A) -1 B) 0 C) 1 D) $\cot 40$ E) $\tan 40$

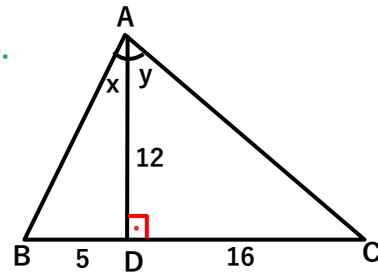


4. $\frac{\cos 35 \cdot \cos 10 - \sin 10 \cdot \sin 35}{\cos 70 \cdot \cos 10 + \sin 70 \cdot \sin 10}$ kaç eşittir?

- A) $-\frac{1}{2}$ B) 0 C) $\sqrt{2}$ D) $\sqrt{3}$ E) ∞



5.



Yandaki ABC üçgeninde $\sin(\text{BAC})$ kaç eşittir?

- A) $\frac{12}{17}$ B) $\frac{17}{25}$ C) $\frac{31}{32}$ D) $\frac{47}{59}$ E) $\frac{63}{65}$



6. Aşağıdakilerden hangileri doğrudur?

- I) $\cos 3 \cdot \sin 7 - \sin 3 \cdot \cos 7 = \sin(-4)$
 II) $-\sin 11 \cdot \cos 1 - \sin 1 \cdot \cos 11 = -\sin 12$
 III) $\sin 4 \cdot \sin 5 + \cos 4 \cdot \cos 5 = \cos 1$
 IV) $\sin 2 \cdot \sin 6 - \cos 2 \cdot \cos 6 = \cos 8$

- A) III B) I,II C) I,IV D) II,III E) II,IV



7. $(\cos 10 + \tan 70 \cdot \sin 10) \cdot \sin 20$ kaç eşittir?

- A) $-\frac{\sqrt{2}}{2}$ B) 0 C) $\frac{1}{2}$ D) 1 E) $\sqrt{3}$



8. $(\sin x + \cos y)^2 + (\sin y + \cos x)^2 - 2$ aşağıdakilerden hangisine eşittir?

- A) 1 B) 2 C) $\sin(x - y)$
 D) $2\cos(x + y)$ E) $2\sin(x + y)$





9. Aşağıdakilerden hangisi $\tan(a+b)$ nin eşitidir?

- A) $\frac{1+\tan a}{\tan b}$ B) $\frac{\tan a + \tan b}{1 - \tan a \cdot \tan b}$ C) $\frac{\tan a - \tan b}{\tan a + \tan b}$
 D) $\frac{1 + \tan a}{1 + \tan b}$ E) $\frac{\tan a \cdot \tan b}{\tan a + \tan b}$



10. $\tan x = 3$ $\tan y = 2$ ise $\tan(x-y)$ kaçtır?

- A) $-\frac{1}{5}$ B) 0 C) $\frac{1}{7}$ D) $\frac{1}{2}$ E) 1

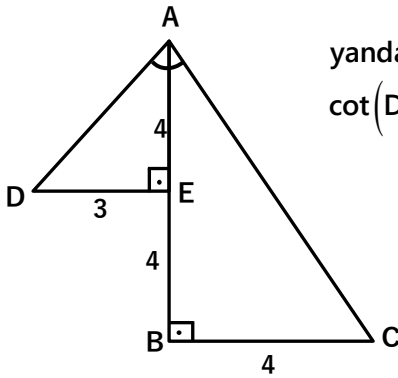


11. $\frac{\tan 50 - \tan 5}{1 + \tan 50 \cdot \tan 5}$ ifadesi kaçta eşittir?

- A) -1 B) 0 C) $\frac{\sqrt{2}}{2}$ D) 1 E) $\frac{3}{2}$

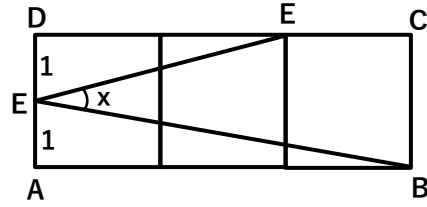


12. yandaki şekilde $\cot(\angle DAC)$ kaçtır?



- A) $\frac{1}{2}$ B) 1 C) $\frac{3}{2}$ D) 2 E) 4

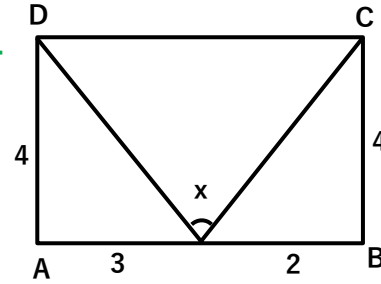
13.



Yukarıda bir kenarı 2 br olan 3 kareden oluşan şekilde $\tan x$ kaçta eşittir?

- A) $\frac{1}{5}$ B) $\frac{10}{23}$ C) $\frac{7}{11}$ D) $\frac{1}{2}$ E) 1

14.

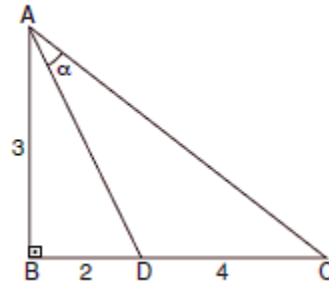


Yandaki ABCD dikdörtgeninde verilenlere göre $\cot x$ kaçta eşittir?



- A) $\frac{1}{2}$ B) $\frac{2}{3}$ C) $\frac{3}{4}$ D) 1 E) $\frac{7}{4}$

15.

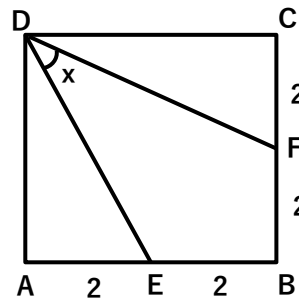


Yandaki ABC dik üçgeninde $\tan \alpha$ kaçta eşittir?



- A) $-\frac{1}{2}$ B) 0 C) $\frac{3}{4}$ D) $\frac{5}{6}$ E) $\frac{4}{7}$

16.



Yandaki ABCD dikdörtgeninde $\tan x$ kaçta eşittir?



- A) $\frac{3}{4}$ B) 1 C) $\frac{3}{2}$ D) $\frac{5}{4}$ E) 2

