Įrašykite trūkstamas reikšmes (gali būti skaičiai ir - ženklas)

| $\alpha$ | | $\sin\alpha$ | $\cos\alpha$ | $\operatorname{tg}\alpha$ | $\operatorname{ctg}\alpha$ |
|---|---|---|---|---|---|
| 0 | 0 | 0 | 1 | ■ | – |
| 30° | $\frac{\pi}{6}$ | $\frac{1}{2}$ | $\frac{\sqrt{3}}{2}$ | $\frac{1}{\sqrt{3}}$ | $\sqrt{3}$ |
| 45° | $\frac{\pi}{4}$ | $\frac{\sqrt{2}}{2}$ | $\frac{\sqrt{2}}{2}$ | ■ | 1 |
| 60° | $\frac{\pi}{3}$ | $\frac{\sqrt{3}}{2}$ | $\frac{1}{2}$ | $\sqrt{3}$ | $\frac{1}{\sqrt{3}}$ |
| 90° | $\frac{\pi}{2}$ | ■ | ■ | ■ | 0 |
| 120° | $\frac{2\pi}{3}$ | $\frac{\sqrt{3}}{2}$ | $-\frac{1}{2}$ | $-\sqrt{3}$ | $-\frac{1}{\sqrt{3}}$ |
| 135° | $\frac{3\pi}{4}$ | $\frac{\sqrt{2}}{2}$ | $-\frac{\sqrt{2}}{2}$ | ■ | -1 |
| 150° | $\frac{5\pi}{6}$ | $\frac{1}{2}$ | $-\frac{\sqrt{3}}{2}$ | $-\frac{1}{\sqrt{3}}$ | $-\sqrt{3}$ |
| 180° | $\pi$ | 0 | -1 | ■ | – |

Lygties $\operatorname{tg} x = a$ sprendiniai yra

$x = \operatorname{arctg} a + 180° \cdot k, \quad k \in \mathbf{Z}.$

$\operatorname{arctg}(-\alpha) = -\operatorname{arctg}\alpha.$

Sujunkite kiekvieną stačiakampį su debesėliu taip, kad gautumėte teisingą lygybę

arctg $(-\sqrt{3})$ =

arctg (–1) =

arctg 1 =

arctg $\frac{\sqrt{3}}{3}$ =

arctg 0 =

arctg $\left(-\frac{\sqrt{3}}{3}\right)$ =

30° –30° 45° –45° –60° 0°

Su kuriomis $x$ reikšmėmis $\operatorname{tg} x$ neturi prasmės?

90° –180° –270° 60° –90° 30° –45°

270° –360° 200° –120° –150° 300° –450°

$\operatorname{tg} x = \frac{\sqrt{3}}{3}$, $x =$ ☁° $+ 180° \cdot k, k \in \mathbf{Z}.$

$\operatorname{tg} x = 1$, $x =$ ☁° $+ 180° \cdot k, k \in \mathbf{Z}.$

$\operatorname{tg} x = 0$, $x =$ ☁° $+ 180° \cdot k, k \in \mathbf{Z}.$

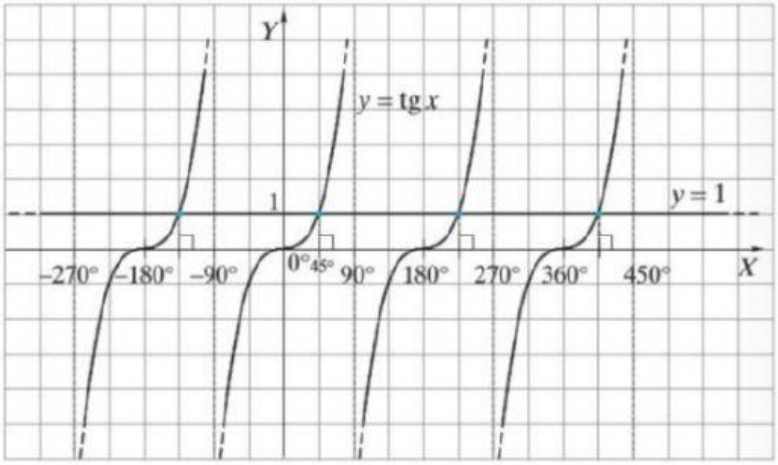
$\operatorname{tg} x = -\frac{\sqrt{3}}{3}$, $x =$ ☁° $+ 180° \cdot k, k \in \mathbf{Z}.$

$\operatorname{tg} x = \sqrt{3}$, $x =$ ☁° $+ 180° \cdot k, k \in \mathbf{Z}.$

$\operatorname{tg} x = -1$, $x =$ ☁° $+ 180° \cdot k, k \in \mathbf{Z}.$

$\operatorname{tg} x = -\sqrt{3}$, $x =$ ☁° $+ 180° \cdot k, k \in \mathbf{Z}.$

Nubraižyti grafikai $y = \operatorname{tg} x$ ir $y = 1$. Remdamiesi jais, raskite lygties $\operatorname{tg} x = 1$ sprendinius, priklausančius intervalui:




$(-270°; -90°)$; $x =$ ☁°;

$(0°; 270°)$; $x = 45°$, $x =$ ☁°