

Trigonometrisko izteiksmju vienkāršošana.

1) $2 + \sin^2 \beta + \cos^2 \beta =$

2) $\sin \beta \cdot \operatorname{ctg} \beta =$

1

$\cos \beta$

$\sin \beta$

$\operatorname{tg} \beta$

3) $\sin^2 x - 1 =$

$\sin^2 x$

$\cos^2 x$

$-\cos^2 x$

$-\sin^2 x$

4) $\left(\cos \frac{\pi}{5} - 1\right) \left(\cos \frac{\pi}{5} + 1\right) =$

$\cos^2 \frac{\pi}{5}$

$-\cos^2 \frac{\pi}{5}$

$\sin^2 \frac{\pi}{5}$

$-\sin^2 \frac{\pi}{5}$

5) $(1 + \operatorname{tg}^2 x) \cdot \sin^2 x =$

$\operatorname{tg}^2 x$

$-\operatorname{ctg}^2 x$

$-\operatorname{tg}^2 x$

$\operatorname{ctg}^2 x$

6) $\frac{\sin(-x)}{\cos x} =$

$\operatorname{tg} x$

$\operatorname{ctg} x$

$-\operatorname{tg} x$

$-\operatorname{ctg} x$

7) $\operatorname{ctg} 56^\circ \cdot \operatorname{tg} 56^\circ + \operatorname{tg} 64^\circ \cdot \operatorname{ctg} 64^\circ =$

8) $\frac{1 - \sin^2 \beta}{1 - \cos^2 \beta} =$

$\operatorname{tg} \beta$

$\operatorname{tg}^2 \beta$

$\operatorname{ctg} \beta$

$\operatorname{ctg}^2 \beta$

9) $\operatorname{tg}^2 y + 1 =$

$\operatorname{ctg}^2 y$

$\frac{1}{\cos^2 y}$

$\frac{1}{\sin^2 y}$

2

10) $\cos^2 \delta - 1 =$

$\sin^2 \delta$

$\cos^2 \delta$

$-\sin^2 \delta$

$-\cos^2 \delta$

11) $\frac{1}{1 + \operatorname{ctg}^2 x} =$

$\sin^2 x$

$\cos^2 x$

$-\cos^2 x$

$-\sin^2 x$

12) $\sin^2 75^\circ + \cos^2 75^\circ + 2 \cdot \operatorname{tg} 75^\circ \cdot \operatorname{ctg} 75^\circ =$

13) $1 - \cos^2 12^\circ - \sin^2 12^\circ =$

14) $\frac{12}{1 + 5 \cdot \operatorname{tg} 65^\circ \cdot \operatorname{tg} 65^\circ} =$

$$15) (1 - \sin^2 x) \cdot (1 + \operatorname{tg}^2 x) + \sqrt{121} =$$

$$16) (1 + \operatorname{ctg}^2 a) \cdot (1 - \cos^2 a) + \cos^2 x + \cos^2 x =$$

$$17) \operatorname{tg}^2 x + \operatorname{ctg}^2 x + 2 - \frac{1}{\sin^2 x} - \frac{1}{\cos^2 x} =$$

$$18) \sin x \cdot \operatorname{tg} x + \cos x =$$

$$\frac{1}{\sin x}$$

$$\frac{1}{\cos x}$$

$$\sin x$$

$$\cos x$$

$$19) \frac{1 - \cos^2 x}{\operatorname{tg}^2 x} =$$

$$\sin^2 x$$

$$\cos^2 x$$

$$- \cos^2 x$$

$$- \sin^2 x$$

$$20) \sin y \operatorname{ctg} y + \cos y =$$