

# Формулы приведения

**Математический  
диктант**

$$1) \sin\left(-\frac{25\pi}{4}\right) =$$

$$2) \cos\left(-\frac{29\pi}{4}\right) =$$

$$3) \frac{12 \operatorname{tg} 19^\circ}{\operatorname{tg} 16^\circ} =$$

$$4) 72 \operatorname{tg} 4^\circ \cdot \operatorname{tg} 94^\circ =$$

$$5) 3 \sin\left(\frac{5\pi}{2} - \alpha\right) =$$

$$6) \cos(-3\pi - \beta) =$$

$$7) -7\sqrt{3}\operatorname{tg}660^\circ =$$



# Формулы приведения

Математический  
диктант. Ответы.

$$\begin{aligned} 1) \sin\left(-\frac{25\pi}{4}\right) &= -\sin\left(\frac{25\pi}{4}\right) = \\ &= -\sin\left(\frac{26\pi}{4} - \frac{\pi}{4}\right) = -\sin\left(6\pi - \frac{\pi}{4}\right) = \\ &= +\sin\left(\frac{\pi}{4}\right) = \frac{\sqrt{2}}{2} \end{aligned}$$

$$2) \cos\left(-\frac{29\pi}{4}\right) = \cos\left(\frac{29\pi}{4}\right) =$$

$$= \cos\left(\frac{28\pi}{4} + \frac{\pi}{4}\right) = \cos\left(7\pi + \frac{\pi}{4}\right) =$$

$$= -\cos\left(\frac{\pi}{4}\right) = -\frac{\sqrt{2}}{2}$$

$$\begin{aligned} 3) \frac{12 \operatorname{tg} 19^\circ}{\operatorname{tg} 161^\circ} &= \frac{12 \operatorname{tg} 19^\circ}{\operatorname{tg}(180^\circ - 19^\circ)} = \\ &= \frac{12 \operatorname{tg} 19^\circ}{\operatorname{tg}(\pi - 19^\circ)} = \frac{12 \operatorname{tg} 19^\circ}{-\operatorname{tg} 19^\circ} = \\ &= -12 \end{aligned}$$

$$\begin{aligned} 4) & 72 \operatorname{tg} 4^\circ \cdot \operatorname{tg} 94^\circ = \\ & = 72 \operatorname{tg} 4^\circ \cdot \operatorname{tg} (90^\circ + 4^\circ) = \\ & = -72 \operatorname{tg} 4^\circ \cdot \operatorname{ctg} 4^\circ = -72 \end{aligned}$$

$$5) 3 \sin\left(\frac{5\pi}{2} - \alpha\right) =$$

$$= 3 \cos \alpha$$

$$\begin{aligned} 6) \cos(-3\pi - \beta) &= \\ &= \cos(-(3\pi + \beta)) = \\ &= \cos(3\pi + \beta) = \\ &= -\cos \beta \end{aligned}$$

$$\begin{aligned} 7) & -7\sqrt{3}\operatorname{tg}660^\circ = \\ & = -7\sqrt{3}\operatorname{tg}(720^\circ - 60^\circ) = \\ & = -7\sqrt{3} \cdot (-\operatorname{tg}60^\circ) = \\ & = 7\sqrt{3} \cdot \sqrt{3} = 21 \end{aligned}$$



# Тема урока?

$$\cos(2\pi - \alpha)$$

$$\sin(180^\circ + \alpha)$$

$$\sin\left(\frac{\pi}{2} + \alpha\right) =$$

$$\cos\left(\frac{3\pi}{2} + \alpha\right)$$

$$\cos\left(\frac{\pi}{4} - \alpha\right)$$

$$\sin(45^\circ + \alpha)$$

$$\sin\left(\frac{\pi}{3} + \alpha\right) =$$

$$\cos\left(\frac{\pi}{6} + \alpha\right)$$