

Tablica: Vrijednosti određenih integrala trigonometrijskih funkcija kod kružno zakrivljenih štapova

Funkcija $f(\varphi)$	$\int_0^{\alpha} f(\varphi) d\varphi$	$\int_0^{\pi/4} f(\varphi) d\varphi$	$\int_0^{\pi/2} f(\varphi) d\varphi$	$\int_{\pi/2}^{\pi} f(\varphi) d\varphi$	$\int_0^{\pi} f(\varphi) d\varphi$
$\sin \varphi$	$1 - \cos \alpha$	$1 - \frac{\sqrt{2}}{2}$	1	1	2
$\cos \varphi$	$\sin \alpha$	$\frac{\sqrt{2}}{2}$	1	-1	0
$\sin^2 \varphi$	$\frac{\hat{\alpha}}{2} - \frac{1}{4} \sin 2\alpha$	$\left(\frac{\pi}{2} - 1\right) \frac{1}{4}$	$\frac{\pi}{4}$	$\frac{\pi}{4}$	$\frac{\pi}{2}$
$\cos^2 \varphi$	$\frac{\hat{\alpha}}{2} + \frac{1}{4} \sin 2\alpha$	$\left(\frac{\pi}{2} + 1\right) \frac{1}{4}$	$\frac{\pi}{4}$	$\frac{\pi}{4}$	$\frac{\pi}{2}$
$\sin \varphi \cdot \cos \varphi$	$\frac{1}{2} \sin^2 \alpha$	$\frac{1}{4}$	$\frac{1}{2}$	$-\frac{1}{2}$	0
$1 - \sin \varphi$	$-1 + \hat{\alpha} + \cos \alpha$	$\frac{\pi}{4} + \frac{\sqrt{2}}{2} - 1$	$\frac{\pi}{2} - 1$	$\frac{\pi}{2} - 1$	$\pi - 2$
$1 - \cos \varphi$	$\hat{\alpha} - \sin \alpha$	$\frac{\pi}{4} - \frac{\sqrt{2}}{2}$	$\frac{\pi}{2} - 1$	$\frac{\pi}{2} + 1$	π
$(1 - \sin \varphi) \sin \varphi$	$1 - \frac{\hat{\alpha}}{2} - \cos \alpha + \frac{1}{4} \sin 2\alpha$	$\frac{5}{4} - \frac{\pi}{8} - \frac{\sqrt{2}}{2}$	$1 - \frac{\pi}{4}$	$1 - \frac{\pi}{4}$	$2 - \frac{\pi}{2}$
$(1 - \sin \varphi) \cos \varphi$	$\sin \alpha - \frac{1}{2} \sin^2 \alpha$	$\frac{\sqrt{2}}{2} - \frac{1}{4}$	$\frac{1}{2}$	$-\frac{1}{2}$	0
$(1 - \cos \varphi) \sin \varphi$	$1 - \cos \alpha - \frac{1}{2} \sin^2 \alpha$	$\frac{3}{4} - \frac{\sqrt{2}}{2}$	$\frac{1}{2}$	$\frac{3}{2}$	2
$(1 - \cos \varphi) \cos \varphi$	$-\frac{\hat{\alpha}}{2} + \sin \alpha - \frac{1}{4} \sin 2\alpha$	$\frac{\sqrt{2}}{2} - \frac{\pi}{8} - \frac{1}{4}$	$1 - \frac{\pi}{4}$	$-1 - \frac{\pi}{4}$	$-\frac{\pi}{2}$
$(1 - \cos \varphi)^2$	$\frac{3\hat{\alpha}}{2} - 2 \sin \alpha + \frac{1}{4} \sin 2\alpha$	$\frac{3\pi}{8} - \sqrt{2} + \frac{1}{4}$	$\frac{3\pi}{4} - 2$	$2 + \frac{3\pi}{4}$	$\frac{3\pi}{2}$
$(1 - \sin \varphi)(1 - \cos \varphi)$	$-1 + \hat{\alpha} + \cos \alpha - \sin \alpha + \frac{1}{2} \sin^2 \alpha$	$(\pi - 3) \frac{1}{4}$	$(\pi - 3) \frac{1}{2}$	$(\pi - 1) \frac{1}{2}$	$\pi - 2$
$\sin^2 \varphi \cdot \cos \varphi$	$\frac{1}{3} \sin^3 \alpha$	$\frac{\sqrt{2}}{12}$	$\frac{1}{3}$	$-\frac{1}{3}$	0
$\cos^2 \varphi \cdot \sin \varphi$	$\frac{1}{3} (1 - \cos^3 \alpha)$	$4 - \frac{\sqrt{2}}{12}$	$\frac{1}{3}$	$\frac{1}{3}$	$\frac{2}{3}$
$\sin 2\varphi$	$\frac{1}{2} (1 - \cos 2\alpha)$	$\frac{1}{2}$	1	0	0
$\cos 2\varphi$	$\frac{1}{2} \sin 2\alpha$	$\frac{1}{2}$	0	0	0