

# TABELA SINUSÓW

Dokładne wartości funkcji sinus dla argumentów od  $0^\circ$  do  $90^\circ$  z odstępem co  $3^\circ$ .

Wyliczył i opracował: *mgr Michał Kosacki*.

| $\alpha$   | $\varphi$         | $\sin \alpha$                                                                                                      |
|------------|-------------------|--------------------------------------------------------------------------------------------------------------------|
| $0^\circ$  | 0                 | 0                                                                                                                  |
| $3^\circ$  | $\frac{\pi}{60}$  | $\frac{\sqrt{2} \cdot (\sqrt{3} + 1) \cdot (\sqrt{5} - 1) - 2 \cdot (\sqrt{3} - 1) \cdot \sqrt{5 + \sqrt{5}}}{16}$ |
| $6^\circ$  | $\frac{\pi}{30}$  | $\frac{\sqrt{6 \cdot (5 - \sqrt{5})} - \sqrt{5} - 1}{8}$                                                           |
| $9^\circ$  | $\frac{\pi}{20}$  | $\frac{\sqrt{2} \cdot (\sqrt{5} + 1) - 2 \cdot \sqrt{5 - \sqrt{5}}}{8}$                                            |
| $12^\circ$ | $\frac{\pi}{15}$  | $\frac{\sqrt{2 \cdot (5 + \sqrt{5})} - \sqrt{3} \cdot (\sqrt{5} - 1)}{8}$                                          |
| $15^\circ$ | $\frac{\pi}{12}$  | $\frac{\sqrt{6} - \sqrt{2}}{4}$                                                                                    |
| $18^\circ$ | $\frac{\pi}{10}$  | $\frac{\sqrt{5} - 1}{4}$                                                                                           |
| $21^\circ$ | $\frac{7\pi}{60}$ | $\frac{2 \cdot (\sqrt{3} + 1) \cdot \sqrt{5 - \sqrt{5}} - \sqrt{2} \cdot (\sqrt{3} - 1) \cdot (\sqrt{5} + 1)}{16}$ |
| $24^\circ$ | $\frac{2\pi}{15}$ | $\frac{\sqrt{3} \cdot (\sqrt{5} + 1) - \sqrt{2 \cdot (5 - \sqrt{5})}}{8}$                                          |
| $27^\circ$ | $\frac{3\pi}{20}$ | $\frac{2 \cdot \sqrt{5 + \sqrt{5}} - \sqrt{2} \cdot (\sqrt{5} - 1)}{8}$                                            |
| $30^\circ$ | $\frac{\pi}{6}$   | $\frac{1}{2}$                                                                                                      |

| $\alpha$   | $\varphi$          | $\sin \alpha$                                                                                                      |
|------------|--------------------|--------------------------------------------------------------------------------------------------------------------|
| $33^\circ$ | $\frac{11\pi}{60}$ | $\frac{\sqrt{2} \cdot (\sqrt{3} + 1) \cdot (\sqrt{5} - 1) + 2 \cdot (\sqrt{3} - 1) \cdot \sqrt{5 + \sqrt{5}}}{16}$ |
| $36^\circ$ | $\frac{\pi}{5}$    | $\frac{\sqrt{2(5 - \sqrt{5})}}{4}$                                                                                 |
| $39^\circ$ | $\frac{13\pi}{60}$ | $\frac{\sqrt{2} \cdot (\sqrt{3} + 1) \cdot (\sqrt{5} + 1) - 2 \cdot (\sqrt{3} - 1) \cdot \sqrt{5 - \sqrt{5}}}{16}$ |
| $42^\circ$ | $\frac{7\pi}{30}$  | $\frac{\sqrt{6 \cdot (5 + \sqrt{5})} - \sqrt{5} + 1}{8}$                                                           |
| $45^\circ$ | $\frac{\pi}{4}$    | $\frac{\sqrt{2}}{2}$                                                                                               |
| $48^\circ$ | $\frac{4\pi}{15}$  | $\frac{\sqrt{2 \cdot (5 + \sqrt{5})} + \sqrt{3} \cdot (\sqrt{5} - 1)}{8}$                                          |
| $51^\circ$ | $\frac{17\pi}{60}$ | $\frac{2 \cdot (\sqrt{3} + 1) \cdot \sqrt{5 - \sqrt{5}} + \sqrt{2} \cdot (\sqrt{3} - 1) \cdot (\sqrt{5} + 1)}{16}$ |
| $54^\circ$ | $\frac{3\pi}{10}$  | $\frac{\sqrt{5} + 1}{4}$                                                                                           |
| $57^\circ$ | $\frac{19\pi}{60}$ | $\frac{2 \cdot (\sqrt{3} + 1) \cdot \sqrt{5 + \sqrt{5}} - \sqrt{2} \cdot (\sqrt{3} - 1) \cdot (\sqrt{5} - 1)}{16}$ |
| $60^\circ$ | $\frac{\pi}{3}$    | $\frac{\sqrt{3}}{2}$                                                                                               |

| $\alpha$   | $\varphi$          | $\sin \alpha$                                                                                                      |
|------------|--------------------|--------------------------------------------------------------------------------------------------------------------|
| $63^\circ$ | $\frac{7\pi}{20}$  | $\frac{2 \cdot \sqrt{5 + \sqrt{5}} + \sqrt{2} \cdot (\sqrt{5} - 1)}{8}$                                            |
| $66^\circ$ | $\frac{11\pi}{30}$ | $\frac{\sqrt{6 \cdot (5 - \sqrt{5})} + \sqrt{5} + 1}{8}$                                                           |
| $69^\circ$ | $\frac{23\pi}{60}$ | $\frac{\sqrt{2} \cdot (\sqrt{3} + 1) \cdot (\sqrt{5} + 1) + 2 \cdot (\sqrt{3} - 1) \cdot \sqrt{5 - \sqrt{5}}}{16}$ |
| $72^\circ$ | $\frac{2\pi}{5}$   | $\frac{\sqrt{2(5 + \sqrt{5})}}{4}$                                                                                 |
| $75^\circ$ | $\frac{5\pi}{12}$  | $\frac{\sqrt{6} + \sqrt{2}}{4}$                                                                                    |
| $78^\circ$ | $\frac{13\pi}{30}$ | $\frac{\sqrt{6 \cdot (5 + \sqrt{5})} + \sqrt{5} - 1}{8}$                                                           |
| $81^\circ$ | $\frac{9\pi}{20}$  | $\frac{\sqrt{2} \cdot (\sqrt{5} + 1) + 2 \cdot \sqrt{5 - \sqrt{5}}}{8}$                                            |
| $84^\circ$ | $\frac{14\pi}{30}$ | $\frac{\sqrt{3} \cdot (\sqrt{5} + 1) + \sqrt{2 \cdot (5 - \sqrt{5})}}{8}$                                          |
| $87^\circ$ | $\frac{29\pi}{60}$ | $\frac{2 \cdot (\sqrt{3} + 1) \cdot \sqrt{5 + \sqrt{5}} + \sqrt{2} \cdot (\sqrt{3} - 1) \cdot (\sqrt{5} - 1)}{16}$ |
| $90^\circ$ | $\frac{\pi}{2}$    | 1                                                                                                                  |