

KRAADIMÕÕT JA RADIAANMÕÕT- näited

$$180^\circ = \pi \text{ rad}$$

$$1^\circ = \frac{\pi}{180} \text{ rad}$$

$$1 \text{ rad} = \frac{180^\circ}{\pi}$$

Näide 1

1) $36^\circ = \frac{36\pi}{180} \text{ rad} \approx 0,6283 \text{ rad};$ Jätta 4 kohta peale koma!

2) $36^\circ 10' = \frac{36,1666\pi}{180} \text{ rad} \approx 0,6312 \text{ rad};$

3) $-75^\circ = \frac{-75\pi}{180} \text{ rad} \approx -1,309 \text{ rad};$

4) $-66^\circ 12' = \frac{-66,2\pi}{180} \text{ rad} \approx -1,1554 \text{ rad}.$

Näide 2

1) $12^\circ = \frac{12\pi}{180} = \frac{\pi}{15};$

2) $75^\circ = \frac{75\pi}{180} = \frac{15\pi}{36} = \frac{5}{12}\pi.$

Näide 3

1) $2\pi = 180^\circ;$

1) $\frac{3\pi}{2} = \frac{3 \cdot 180^\circ}{2} = 270^\circ;$

2) $\frac{3\pi}{4} = \frac{3 \cdot 180^\circ}{4} = 135^\circ;$

3) $\frac{2\pi}{15} = \frac{2 \cdot 180^\circ}{15} = 24^\circ.$

Näide 4

1) $2 \text{ rad} = \frac{2 \cdot 180^\circ}{\pi} = \frac{360^\circ}{\pi} = 114^\circ 35' 30'';$

2) $0,75 \text{ rad} = \frac{0,75 \cdot 180^\circ}{\pi} = 42^\circ 58' 19''.$

Näide 5

1) $\sin \frac{\pi}{6} = \sin \frac{180^\circ}{6} = \sin 30^\circ = 0,5;$

2) $\cos \frac{\pi}{3} = \cos \frac{180^\circ}{3} = \cos 60^\circ = 0,5;$

3) $\sin \frac{\pi}{10} = \sin \frac{180^\circ}{10} = \sin 18^\circ = 0,3090;$

4) $\sin 1,5 = \sin \frac{1,5 \cdot 180^\circ}{\pi} = \sin 85,94^\circ = 0,9975;$

5) $\cos 0,01 = \cos \frac{0,01 \cdot 180^\circ}{\pi} = \cos 0,57^\circ \approx 1.$