

Vypočítejte:

$$1. \sin 1380^\circ = \sin(1380^\circ - 3 \cdot 360^\circ) = \sin 300^\circ = -\sin(360^\circ - 300^\circ) = -\sin 60^\circ = -\frac{\sqrt{3}}{2} \quad \text{II. } \ominus \quad 2b$$

$$2. \cos \frac{22\pi}{3} = \cos\left(\frac{22}{3}\pi - 3 \cdot \frac{6}{3}\pi\right) = \cos \frac{4}{3}\pi = -\cos\left(\frac{4}{3}\pi - \pi\right) = -\cos \frac{1}{3}\pi = -\frac{1}{2} \quad \text{III. } \rightarrow \ominus \quad 2b$$

$$3. \sin \frac{19\pi}{6} = \sin\left(\frac{19}{6}\pi - 2 \cdot \frac{12}{6}\pi\right) = \sin \frac{5}{6}\pi = \sin\left(\frac{5}{6}\pi - \pi\right) = -\sin \frac{1}{6}\pi = -\frac{1}{2} \quad \text{III. } \ominus \quad 2b$$

$$4. \cos\left(-\frac{52\pi}{4}\right) = \cos \frac{52}{4}\pi = \cos\left(\frac{52}{4}\pi - 6 \cdot \frac{8}{4}\pi\right) = \cos \frac{4}{4}\pi = \cos \pi = -1 \quad 1,5b$$

$$5. \sin\left(-\frac{52\pi}{3}\right) = -\sin\left(\frac{52}{3}\pi - 8 \cdot \frac{6}{3}\pi\right) = -\sin \frac{4}{3}\pi = +\sin\left(\frac{4}{3}\pi - \pi\right) = \sin \frac{1}{3}\pi = \frac{\sqrt{3}}{2} \quad \text{III. } \rightarrow \ominus \quad 2b$$

$$6. \sin\left(-\frac{29\pi}{4}\right) = -\sin \frac{29}{4}\pi = -\sin\left(\frac{29}{4}\pi - 3 \cdot \frac{8}{4}\pi\right) = -\sin \frac{5}{4}\pi = +\sin\left(\frac{5}{4}\pi - \pi\right) = \sin \frac{1}{4}\pi = \frac{\sqrt{2}}{2} \quad \text{III. } \rightarrow \ominus \quad 2b$$

$$7. \sin 960^\circ = \sin(960^\circ - 2 \cdot 360^\circ) = \sin 240^\circ = -\sin(240^\circ - 180^\circ) = -\sin 60^\circ = -\frac{\sqrt{3}}{2} \quad \text{III. } \ominus \quad 2b$$

$$8. \sin(-495^\circ) = -\sin(495^\circ - 360^\circ) = -\sin 135^\circ = -\sin(180^\circ - 135^\circ) = -\sin 45^\circ = -\frac{\sqrt{2}}{2} \quad \text{II. } + \quad 2b$$

$$9. \cos 780^\circ = \cos(780^\circ - 2 \cdot 360^\circ) = \cos 60^\circ = \frac{1}{2} \quad 2b$$

$$10. \sin(-405^\circ) = -\sin(405^\circ - 360^\circ) = -\sin 45^\circ = -\frac{\sqrt{2}}{2} \quad 1,5b$$

$$\begin{aligned} 1380^\circ - 1414^\circ &= 145^\circ \\ 1414^\circ - 1215^\circ &= 199^\circ \\ 1215^\circ - 914^\circ &= 301^\circ \\ 914^\circ - 414^\circ &= 500^\circ \end{aligned}$$

B.

Vypočítejte:

$$1. \sin \frac{22\pi}{3} = \sin\left(\frac{22}{3}\pi - 3 \cdot \frac{6}{3}\pi\right) = \sin \frac{4}{3}\pi = -\sin\left(\frac{4}{3}\pi - \pi\right) = -\sin \frac{1}{3}\pi = -\frac{\sqrt{3}}{2} \quad \text{III. } \cos \rightarrow \ominus \quad 2b$$

$$2. \cos 1380^\circ = \cos(1380^\circ - 3 \cdot 360^\circ) = \cos 300^\circ = +\cos(360^\circ - 300^\circ) = \cos 60^\circ = \frac{1}{2} \quad \text{IV. } \cos \oplus \quad 2b$$

$$3. \cos 960^\circ = \cos(960^\circ - 2 \cdot 360^\circ) = \cos 240^\circ = -\cos(240^\circ - 180^\circ) = -\cos 60^\circ = -\frac{1}{2} \quad \text{III. } \ominus \quad 2b$$

$$4. \cos(-495^\circ) = \cos 495^\circ = \cos(495^\circ - 1 \cdot 360^\circ) = \cos 135^\circ = -\cos(180^\circ - 135^\circ) = -\cos 45^\circ = -\frac{\sqrt{2}}{2} \quad \text{II. } \rightarrow \ominus \quad 2b$$

$$5. \cos \frac{19\pi}{6} = \cos\left(\frac{19}{6}\pi - 1 \cdot \frac{12}{6}\pi\right) = \cos \frac{5}{6}\pi = -\cos\left(\frac{5}{6}\pi - \pi\right) = -\cos \frac{1}{6}\pi = -\frac{\sqrt{3}}{2} \quad \text{III. } \rightarrow \ominus \quad 2b$$

$$6. \sin\left(-\frac{52\pi}{4}\right) = -\sin \frac{52}{4}\pi = -\sin\left(\frac{52}{4}\pi - 6 \cdot \frac{8}{4}\pi\right) = -\sin \frac{4}{4}\pi = -\sin \pi = 0 \quad 1,5b$$

$$7. \cos\left(-\frac{52\pi}{3}\right) = \cos \frac{52}{3}\pi = \cos\left(\frac{52}{3}\pi - 8 \cdot \frac{6}{3}\pi\right) = \cos \frac{4}{3}\pi = -\cos\left(\frac{4}{3}\pi - \pi\right) = -\cos \frac{1}{3}\pi = -\frac{1}{2} \quad \text{III. } \ominus \quad 2b$$

$$8. \sin\left(-\frac{29\pi}{4}\right) = -\sin \frac{29}{4}\pi = -\sin\left(\frac{29}{4}\pi - 3 \cdot \frac{8}{4}\pi\right) = -\sin \frac{5}{4}\pi = +\sin\left(\frac{5}{4}\pi - \pi\right) = \sin \frac{1}{4}\pi = \frac{\sqrt{2}}{2} \quad \text{III. } \ominus \quad 2b$$

$$9. \sin 780^\circ = \sin(780^\circ - 2 \cdot 360^\circ) = \sin 60^\circ = \frac{\sqrt{3}}{2} \quad 1b$$

$$10. \cos(-405^\circ) = \cos 405^\circ = \cos(405^\circ - 1 \cdot 360^\circ) = \cos 45^\circ = \frac{\sqrt{2}}{2} \quad 1,5b$$

A.

$$\begin{aligned} 1380^\circ - 1414^\circ &= 145^\circ \\ 1414^\circ - 1215^\circ &= 199^\circ \\ 1215^\circ - 914^\circ &= 301^\circ \\ 914^\circ - 414^\circ &= 500^\circ \end{aligned}$$