VD 4.7.2

Evaluate the following expressions

1	$\arccos\left(\frac{\sqrt{2}}{2}\right)=\frac{\pi}{4}$	$\arctan\left(-\frac{1}{2}\sec\frac{\pi}{3}\right)=-\frac{\pi}{4}$	$\sin\left[\arccos\left(-\frac{9}{10}\right)\right]=\frac{\sqrt{19}}{10}$
2	$\arctan\left(\frac{\sqrt{3}}{3}\right)=\frac{\pi}{6}$	$\arccos\left(\sin\frac{2\pi}{3}\right)=\frac{\pi}{3}$	$\cos\left[\arctan\left(-\frac{12}{5}\right)\right]=\frac{5}{13}$
3	$\arccos\left(-\frac{1}{\sqrt{2}}\right)=\frac{3\pi}{4}$	$\arctan\left(\tan\frac{3\pi}{4}\right)=-\frac{\pi}{4}$	$\csc\left[\arccos\left(-\frac{40}{41}\right)\right]=\frac{41}{9}$
4	$\arctan(-1)=-\frac{\pi}{4}$	$\arccos\left(\cos\frac{\pi}{6}\right)=\frac{\pi}{6}$	$\cot\left[\arctan\left(-\frac{15}{8}\right)\right]=-\frac{8}{15}$
5	$\arccos\left(-\frac{1}{2}\right)=\frac{2\pi}{3}$	$\arctan\left(\cot\frac{5\pi}{3}\right)=-\frac{\pi}{6}$	$\cos\left[\arccos\left(-\frac{3}{7}\right)\right]=-\frac{3}{7}$
6	$\arctan\left(\sqrt{3}\right)=\frac{\pi}{3}$	$\arccos\left(\cot\frac{3\pi}{4}\right)=\pi$	$\sec\left[\arctan\left(-\frac{5}{4}\right)\right]=\frac{\sqrt{41}}{4}$
7	$\arccos\left(\sqrt{2}\right)$ does not exist	$\arctan\left(\cot\left(-\frac{\pi}{3}\right)\right)=-\frac{\pi}{6}$	$\tan\left[\arccos\left(\frac{1}{4}\right)\right]=\sqrt{15}$
8	$\arctan\left(-\frac{\sqrt{3}}{3}\right)=-\frac{\pi}{6}$	$\arccos\left(\csc\frac{7\pi}{6}\right)$ does not exist	$\sin\left[\arctan(-3)\right]=-\frac{3}{\sqrt{10}}$