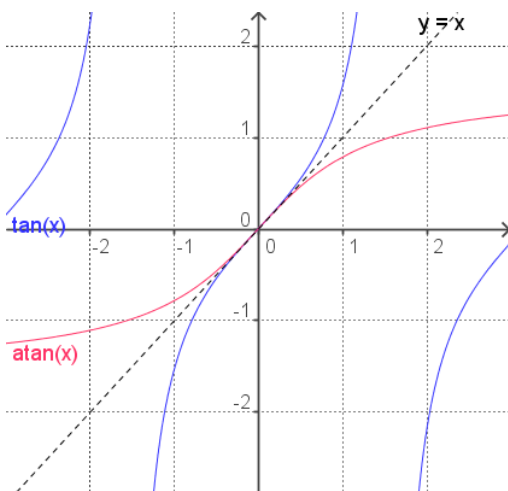
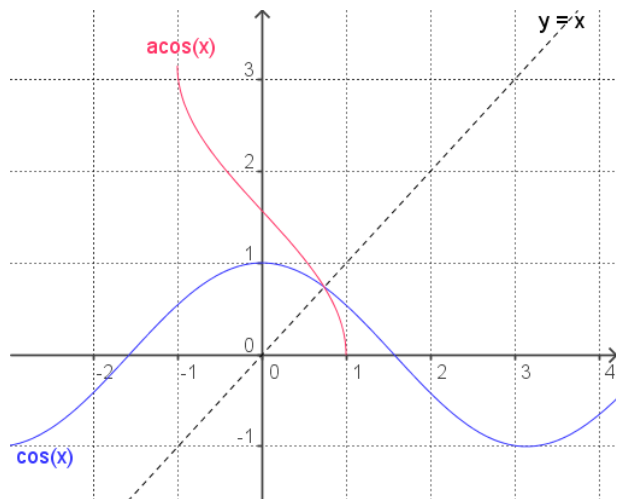
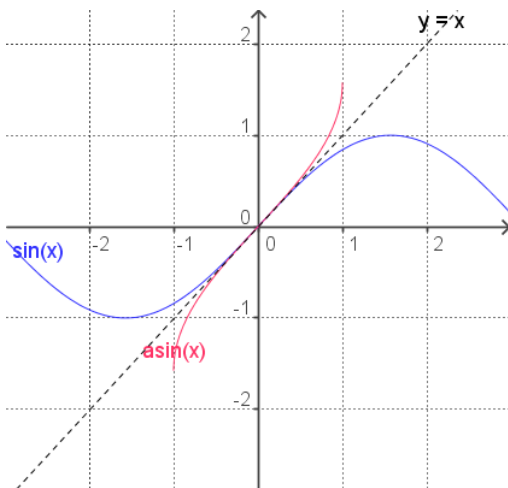


Arcusfunktionen



Es gelten folgende Formeln:

$$\arcsin(x) = \begin{cases} \arctan\left(\frac{x}{\sqrt{1-x^2}}\right) & ; -1 < x < 1 \\ \text{sgn}(x) \cdot \frac{\pi}{2} & ; |x| = 1 \end{cases}$$

$$\arccos(x) = \begin{cases} \arctan\left(\frac{\sqrt{1-x^2}}{x}\right) & ; 0 < x \leq 1 \\ \pi + \arctan\left(\frac{\sqrt{1-x^2}}{x}\right) & ; -1 \leq x < 0 \\ \frac{\pi}{2} & ; x = 0 \end{cases}$$

Reihenentwicklung des Arkustangens:

$$\arctan(x) = x - \frac{x^3}{3} + \frac{x^5}{5} - \frac{x^7}{7} + \dots$$

$$\text{arccot}(x) = \arctan\left(\frac{1}{x}\right) ; x \neq 0$$

