T.5.4 Trigonometrische Identitäten

de Moivre-Identität.

$$\cos(n\varphi) + \mathrm{i}\,\sin(n\varphi) = (\cos\varphi + \mathrm{i}\,\sin\varphi)^n, \tag{T.59}$$

$$(\cosh z + \sinh z)^n = \cosh(nz) + \sinh(nz). \tag{T.60}$$

$$\cos^2 2x - \cos x \cos 3x = \sin^2 x, \tag{T.61}$$

$$\tan x - \tan(90° - x) = 2\tan(2x - 90°), \tag{T.62}$$

$$\tan(x + 60°) = \tan(30° - x) + 2\tan(60° - 2x) + 4\tan(4x - 30°), \tag{T.63}$$

$$\csc(2x) - 4\sin(15° - x)\sin(75° - x)\csc(2x) = 2, \tag{T.64}$$

$$\arcsin x + \arcsin y = \arcsin(x\sqrt{1 - y^2} + y\sqrt{1 - x^2}). \tag{T.65}$$