

$$\cos^2 a \cos^2(a) \sin^2 a \sin^2(a) \cos a \cos(a) \sin a \sin(a) \sin^2(\pi\nu) T_\nu(z) = \cos\left(\frac{\pi\nu}{2}\right) \left( 1 + \frac{z\nu \sin\left(\frac{\pi\nu}{2}\right)}{\cos\left(\frac{\pi\nu}{2}\right) + \prod_{k=1}^{\infty} \left( \frac{-\left(4^{-2+k} z\nu^2 \Gamma\left(-\frac{1}{2} + \frac{k}{2} - \frac{\nu}{2}\right) \Gamma\left(\frac{1}{2} + \frac{k}{2} - \frac{\nu}{2}\right) \Gamma\left(-\frac{1}{2} + \frac{k}{2} + \frac{\nu}{2}\right) \Gamma\left(\frac{1}{2} + \frac{k}{2} + \frac{\nu}{2}\right) \sin^2(\pi\nu)\right)}{\pi^2 \Gamma(k) \Gamma(2+k)} \right)} \right) \quad (1)$$