

FORMULA 3.627

$$\int_0^{\pi/2} \frac{\tan^\mu x}{\cos^\mu x} dx = \int_0^{\pi/2} \frac{\cot^\mu x}{\sin^\mu x} dx = \frac{\Gamma(\mu)\Gamma(\frac{1}{2} - \mu)}{2^\mu \sqrt{\pi}} \sin \frac{\pi\mu}{2}$$