

! For an efficient use of these tables, first read [HowTo.pdf](#).

T2.58A. Integrands involving product of trigonometric and exponential functions of trigonometric functions on the interval $(0, \pi/2)$.

$$1. \int_0^{\pi/2} e^{-p \cos x} \sin(p \sin x) dx = \text{Ei}(-p) - \text{Ci}(p).$$

$$2. \int_0^{\pi/2} e^{-p \cos x} \cos(p \sin x) dx = -\text{Si}(p).$$

$$3. \int_0^{\pi/2} e^{-p \cos x} \cos(p \sin x) dx = \frac{1}{2} \int_0^{2\pi} e^{-p \cos x} \cos(p \sin x) dx = \pi.$$

$$4. \int_0^{\pi/2} \frac{e^{p \cos 2x} \cos(p \sin 2x) dx}{\cos^2 x + q^2 \sin^2 x} = \frac{\pi}{2q} \exp\left(p \frac{q-1}{q+1}\right).$$