

C4282

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

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T3.43B. Integrands involving product of trigonometric functions, exponentials and powers of x and $1/x$ on the interval (y, ∞) .

$$1. \int_y^\infty x^{\mu-1} e^{-\beta x} \sin \delta x \, dx = \frac{i}{2} (\beta + i\delta)^{-\mu} \Gamma[\mu, (\beta + i\delta)y] - \frac{i}{2} (\beta - i\delta)^{-\mu} \Gamma[\mu, (\beta - i\delta)y],$$

$$\Re\{\beta\} > |\Im\{\delta\}|.$$

$$2. \int_y^\infty x^{\mu-1} e^{-\beta x} \cos \delta x \, dx = \frac{1}{2} (\beta + i\delta)^{-\mu} \Gamma[\mu, (\beta + i\delta)y] + \frac{1}{2} (\beta - i\delta)^{-\mu} \Gamma[\mu, (\beta - i\delta)y],$$

$$\Re\{\beta\} > |\Im\{\delta\}|.$$

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