! For an efficient use of these tables, first read `HowTo.pdf`.

T3.20B. Integrands involving exponential functions on the interval $(1, \infty)$ and (y, ∞).

1. $$\int_1^\infty e^{-qx-x^2}\,dx = \frac{\pi^{1/2}}{2} e^{q^2/4}\left[1 - \operatorname{erf}\left(1 + \frac{1}{2}q\right)\right].$$

2. $$\int_y^\infty \frac{1}{\sqrt{1-e^{-2x}}}\left\{e^{-y}\sqrt{1-e^{-2x}} - e^{-x}\sqrt{1-e^{-2y}}\right\}^\nu e^{-\mu x}\,dx$$
$$= \frac{2^{-(\mu+\nu)/2}\sqrt{\pi}\, e^{-y(\mu+\nu)/2}\,\Gamma(\mu)\Gamma(\nu+1)\, P_{-(\mu-\nu)/2}^{(-(\mu+\nu)/2)}\left(\sqrt{1-e^{-2y}}\right)}{\Gamma[(\mu+\nu+1)/2]},$$
$$y > 0,\ \Re\{\mu\} > 0,\ \Re\{\nu\} > -1.$$

3. $$\int_y^\infty \exp\left(-\frac{x^2}{4\beta} - \gamma x\right) dx = \sqrt{\pi\beta}\, e^{\beta\gamma^2}\left[1 - \operatorname{erf}\left(\gamma\sqrt{\beta} + \frac{y}{2\sqrt{\beta}}\right)\right], \quad \Re\{\beta\} > 0,\ y \geq 0.$$