> $f := x \rightarrow \exp(-x^2)$

$$f := x \rightarrow \mathrm{e}^{-x^2} \tag{1}$$

> $ft := unapply(convert(taylor(f(x), x = 0, 8), polynom), x)$

$$ft := x \rightarrow 1 - x^2 + \frac{1}{2} x^4 - \frac{1}{6} x^6 \tag{2}$$

> $erf1 := unapply\left(\frac{2}{\mathrm{sqrt}(\mathrm{Pi})} \cdot int(\mathrm{ft}(\mathrm{t}), \mathrm{t} = 0 \ldots x), x\right)$

$$erf1 := x \rightarrow \frac{2\left(x - \frac{1}{3} x^3 + \frac{1}{10} x^5 - \frac{1}{42} x^7\right)}{\sqrt{\pi}} \tag{3}$$

> $erf2 := \mathrm{erf}(0)$: **for** i **from** 1 **to** 8 **do** $erf2 := erf2 + \frac{subs(x = 0, diff(\mathrm{erf}(x), x\$i))}{i!} \cdot x^i$ **end do**:

$erf2 := unapply(erf2, x)$

$$erf2 := x \rightarrow \frac{2\,x}{\sqrt{\pi}} - \frac{2}{3} \frac{x^3}{\sqrt{\pi}} + \frac{1}{5} \frac{x^5}{\sqrt{\pi}} - \frac{1}{21} \frac{x^7}{\sqrt{\pi}} \tag{4}$$

> $evalf(\ erf1(1))$

$$0.8382245242 \tag{5}$$

> $evalf(\ erf2(1))$

$$0.8382245242 \tag{6}$$

> $evalf(\mathrm{erf}(1))$

$$0.8427007929 \tag{7}$$

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