Coupling Constants Formula

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$$\alpha = \left(\frac{1}{n}\right)^2 \left(-e^{2a} - 2e^{a} + e^{a^2} + 2ae + a^2\right)^p$$

Coupling constant:	Input values:	Result (to 9 significant figures):
gravitational	n = 3, a = e^3, p = -1/4	α_G = 1.75401287×10^-45
weak	n = 1, a = e, p = -2	α_W = 5.24806923×10^-7
electromagnetic	n = 1, a = π, p = -1/2	α_EM = 7.29735256×10^-3
strong	n = 2, a = 0, p = 2	α_S = 1