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35632-0001. *Solution of Differential Equations Using Hypergeometric-Type Functions.*

Four general forms are derived for all eigensequences $A(x)y_n'' + C(x)y_n = \mu_n y_n$ which have hypergeometric-type eigenfunctions. Solutions are given for each of the forms in terms of Hermite, Bessel, Generalized Laguerre, and Jacobi functions.

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