



36. $y''_{xx} + f y'_x + a(f - a)y = 0, \quad f = f(x).$

Particular solution: $y_0 = e^{-ax}.$

Solution:

$$y = y_0 \left(C_1 + C_2 \int \frac{e^{-F}}{y_0^2} dx \right), \quad \text{where } F = \int f dx,$$

C_1 and C_2 are arbitrary constants.

References

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