



$$2. \quad \frac{\partial w}{\partial t} = a \frac{\partial}{\partial x} \left(w^m \frac{\partial w}{\partial x} \right) + bw.$$

By the transformation $w(x, t) = e^{bt}v(x, \tau)$, $\tau = \frac{1}{bm}e^{bmt} + C$ the original equation can be reduced to an equation of the form 2.1.1:

$$\frac{\partial v}{\partial \tau} = a \frac{\partial}{\partial x} \left(v^m \frac{\partial v}{\partial x} \right).$$

References

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