

#65457 Math, Differential Equations

Write a linear first-order differential equation and work out its general solution.

Answer:

A first order linear differential equation has the following form:

$$\frac{dy}{dx} + p(x)y = q(x)$$

General solution for it is the following:

$$y = \frac{\int u(x)q(x)dx + C}{u(x)}$$