

# Equações Diferenciais: Gabarito

## EDOs de 1a ordem Separáveis

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Versão: 20150825

1. (a)  $y = Ke^{2x}$   
(b)  $y = Ke^{\frac{2}{3}x}$   
(c)  $y = Ke^{2x} - \frac{1}{2}$   
(d)  $y = Ke^{10x} - \frac{1}{5}$   
(e)  $y = Ke^{-x} + \frac{1}{2}$   
(f)  $y = Ke^{\frac{4}{3}x} + \frac{5}{4}$   
(g)  $y = Ke^{-\frac{2}{3}x} - \frac{3}{4}$   
(h)  $y = Ke^{\sqrt{3}x}$   
(i)  $y = Ke^{2\pi x}$   
(j)  $y = Kx$   
(k)  $y = Ke^{x^2}$   
(l)  $y = Ke^{\sin x}$   
(m)  $y = Ke^{-x}x^x$   
(n)  $y = Ke^{rx} - \frac{a}{r}$
2. (a)  $y = \frac{1}{-x + K}$  ou  $y = \frac{-1}{x + K}$   
(b)  $y = \pm\sqrt{x + K}$   
(c)  $y = \pm\sqrt{2x + K}$   
(d)  $y = \pm\sqrt{x^2 + K}$   
(e)  $y = Ke^{\frac{x^3}{3}}$   
(f)  $y = -\frac{2}{x^2 + K}$   
(g)  $y = -\frac{3}{x^3 + K}$   
(h)  $y = \pm\sqrt{2\ln x + K}$