

Equações Diferenciais: Gabarito

Problemas de Valor Inicial e Campos de Direções

Prof: Felipe Figueiredo

<http://sites.google.com/site/proffelipefigueiredo>

Versão: 20141124

1 Exercícios

1. (a) $y = -5e^{2x}$
(b) $y = \pi e^{\frac{2}{3}x}$
(c) $y = e^{2x} - \frac{1}{2}$
(d) $y = e^{10x} - \frac{1}{5}$
(e) $y = \frac{e^{-x}}{2} + \frac{1}{2}$
(f) $y = -\frac{11}{12}e^{\frac{4}{3}x} + \frac{5}{4}$
(g) $y = -\frac{17}{4}e^{-\frac{2}{3}x} - \frac{3}{4}$
(h) $y = e^2 e^{\sqrt{3}x} = e^{\sqrt{3}x+2}$
(i) $y = (5e)e^{2\pi x} = 5e^{2\pi x+1}$
(j) $y = 5x$
(k) $y = e^{x^2}$
(l) $y = \pi e^{\sin x}$
(m) $y = e^{x-1}x^x$
(n) $y = (\frac{a}{r} + y_0)e^{rx} - \frac{a}{r}$
2. (a) $y = \frac{1}{3-x}$
(b) $y = \sqrt{x}$
(c) $y = \sqrt{2x-1}$
(d) $y = -\sqrt{x^2+3}$
(e) $y = e^{\frac{x^3}{3}}$
(f) $y = -\frac{2}{x^2+1}$
(g) $y = -\frac{3}{x^3+2}$
(h) $y = \sqrt{2\ln x + 1}$
3. (a)
(b)
(c)