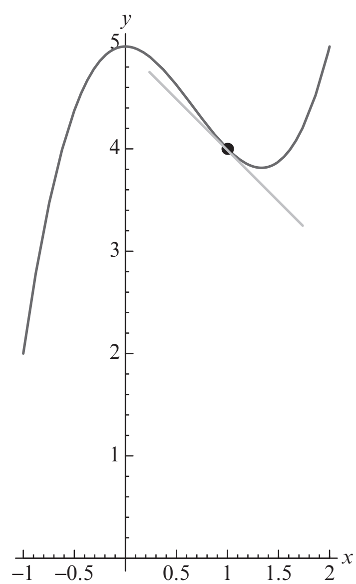

FIGURE 1.1 Solution to $\mathrm{d}y/\mathrm{d}x = 3x^2 - 4x$, $y(1) = 4$ along with a segment of the tangent line at $(1, 4)$.

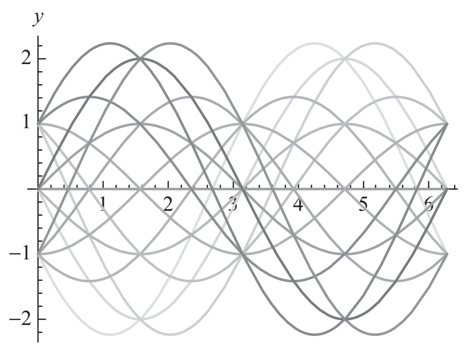

FIGURE 1.2 Graphs of $y = c_1 \cos t + c_2 \sin t$ for various values of c_1 and c_2.

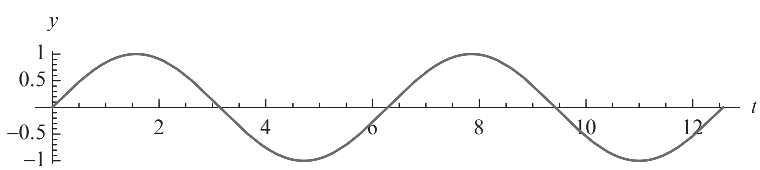

FIGURE 1.3 Graph of $y = y(t) = \sin t$.

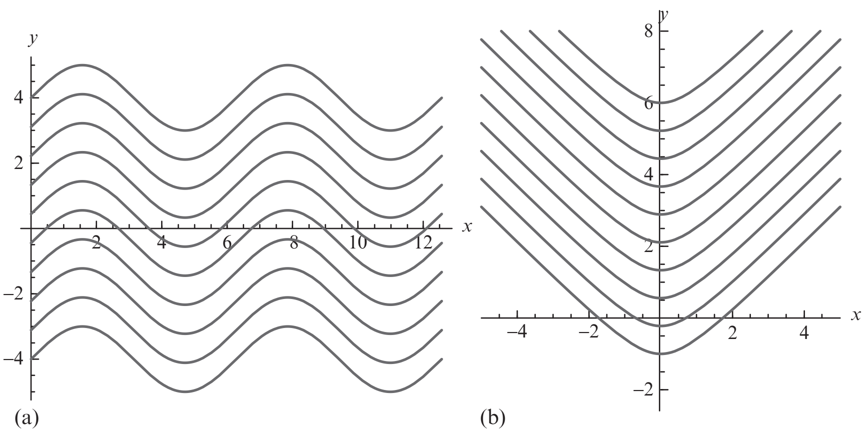

FIGURE 1.4 (a) Graph of $y = \sin x + C$ for various values of C. (b) Graph of $y = \sqrt{x^2+1} + C$ for various values of C.

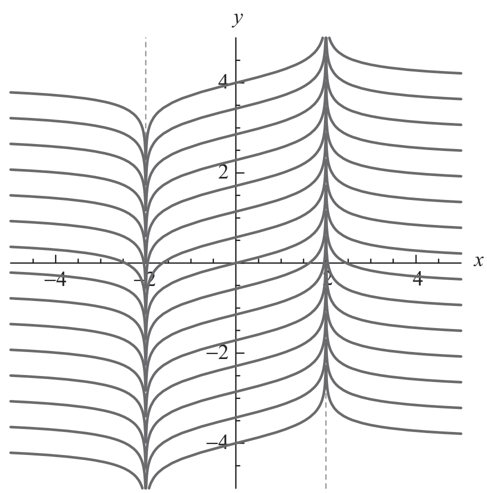

FIGURE 1.5 Graph of $y = \frac{1}{4} \ln |(2 + x)/(2 - x)| + C$ for various values of C.

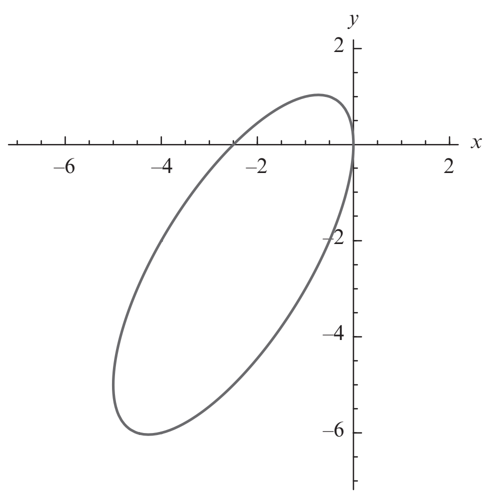

FIGURE 1.6 Graph of $2x^2 + y^2 - 2xy + 5x = 0$.

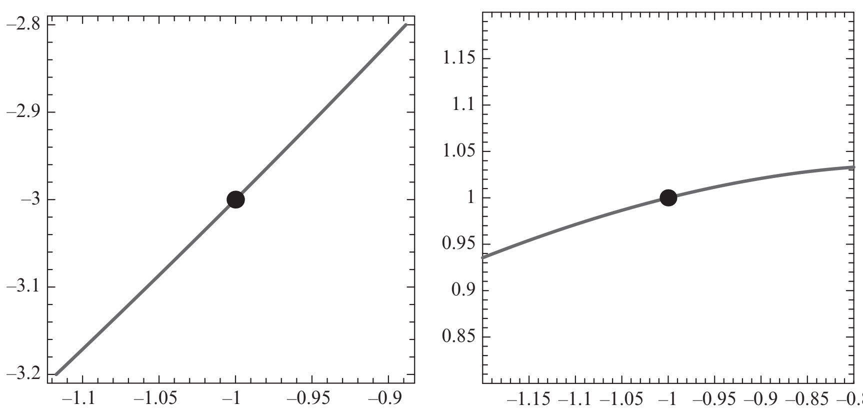

FIGURE 1.7 Notice that near the points $(-1, -3)$ and $(-1, 1)$ the implicit solution *looks* like a function. In fact, when we zoom in near the points $(-1, -3)$ and $(-1, 1)$, we see what appears to be the graph of a function.

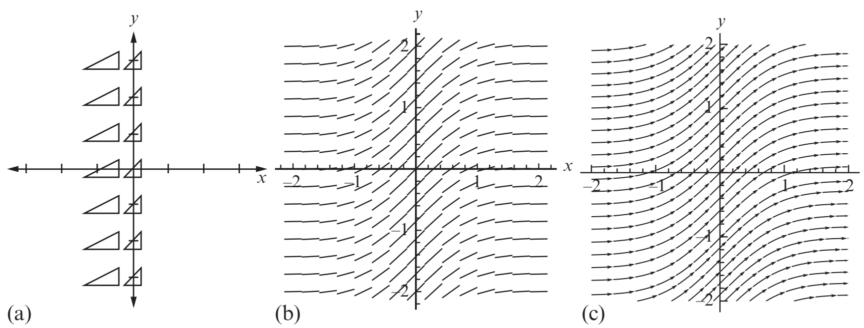

FIGURE 1.8 (a) Several line segments in the slope field for $dy/dx = e^{-x^2}$. (b) One view of the slope field for the equation. (c) A different view of the slope field for the equation.

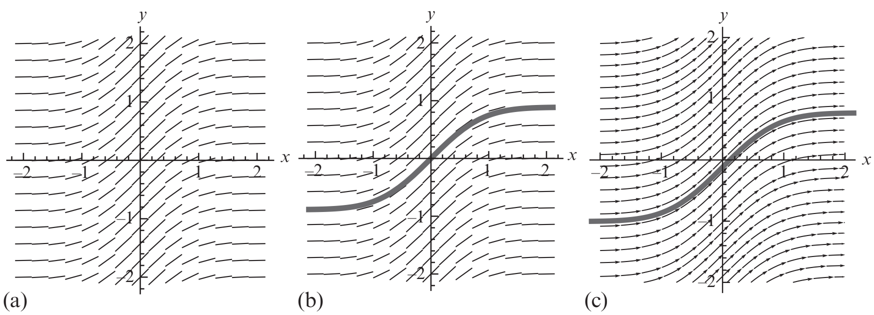

FIGURE 1.9 (a) Slope field for $\mathrm{d}y/\mathrm{d}x = \mathrm{e}^{-x^2}$. (b) Using the slope field to sketch the solution to $\mathrm{d}y/\mathrm{d}x = \mathrm{e}^{-x^2}$, $y(-2) = -1$. (c) A different view of using the slope field to sketch the solution to $\mathrm{d}y/\mathrm{d}x = \mathrm{e}^{-x^2}$, $y(-2) = -1$.

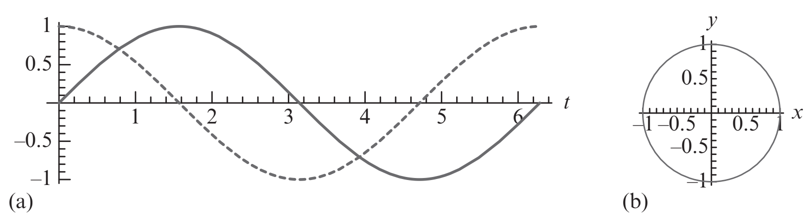

FIGURE 1.10 (a) Graphs of $x(t) = \sin t$ and $y(t) = \cos t$ for $0 \leq t \leq 2\pi$. (b) Graph of the parametric equations $x(t) = \sin t$ and $y(t) = \cos t$ for $0 \leq t \leq 2\pi$.

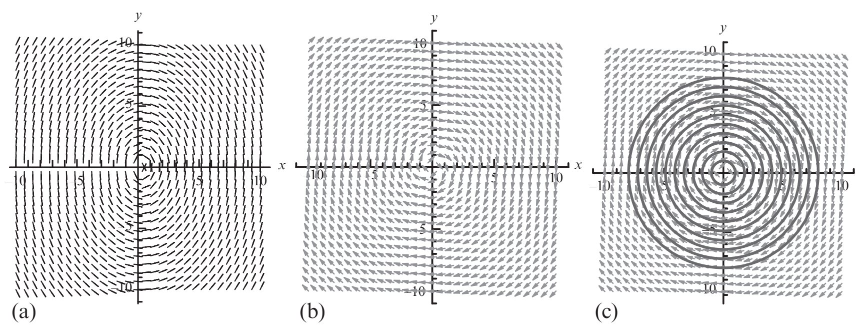

FIGURE 1.11 (a) Slope field for $\mathrm{d}y/\mathrm{d}x = -x/y$. (b) Direction field for $\mathrm{d}x/\mathrm{d}t = y$, $\mathrm{d}y/\mathrm{d}t = -x$. (c) Direction field for $\mathrm{d}x/\mathrm{d}t = y$, $\mathrm{d}y/\mathrm{d}t = -x$ and several solution curves.

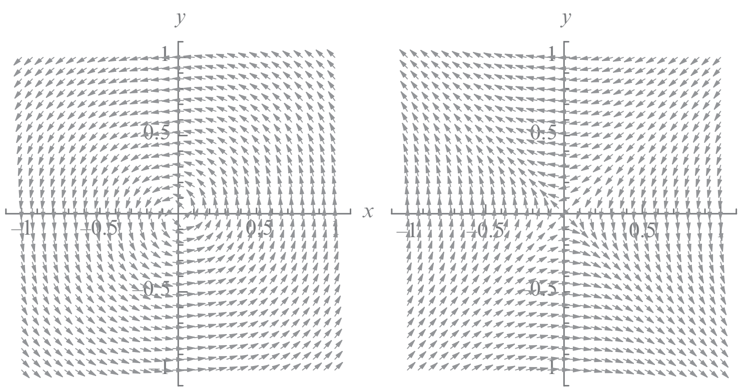

FIGURE 1.12 Figure for Exercise 23.

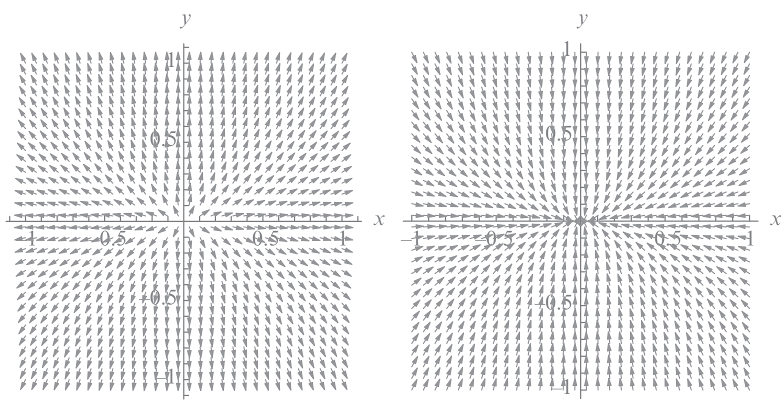

FIGURE 1.13 Figure for Exercise 24.

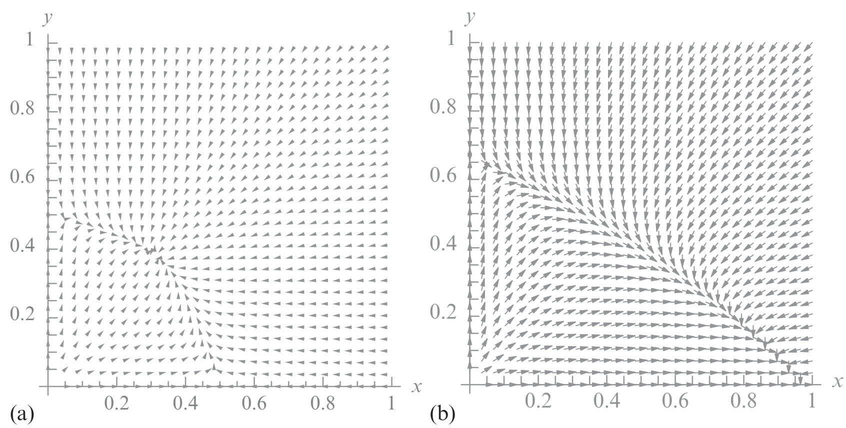

FIGURE 1.14 (a) Figure for Exercise 25 (a). (b) Figure for Exercise 25 (b).

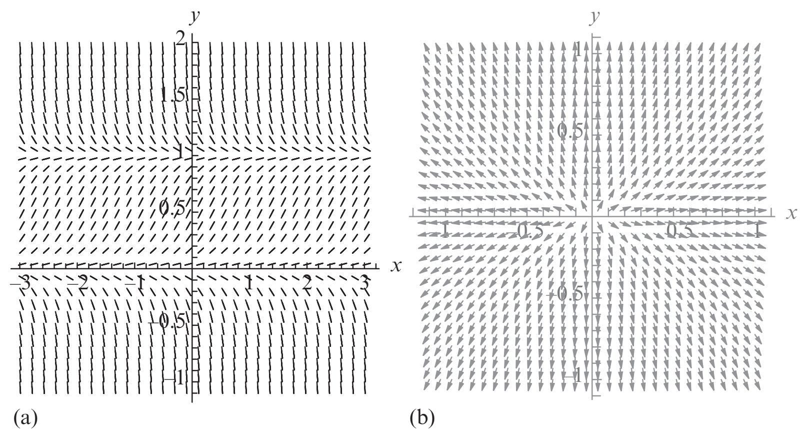

FIGURE 1.15 (a) Figure for Exercise 30. (b) Figure for Exercise 31.