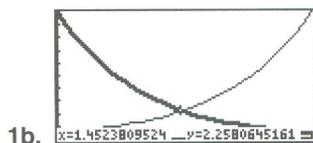
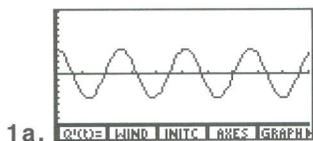
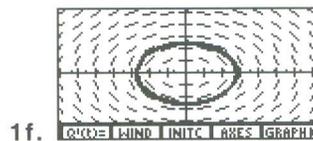
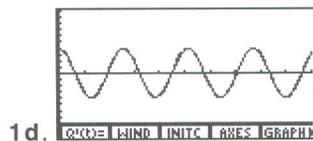


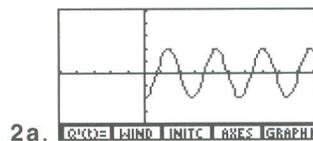
Chapter 5: Harmonic Motion



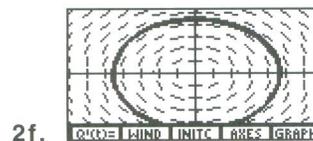
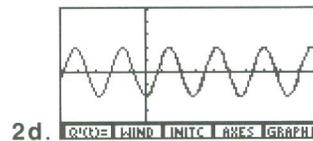
1c. $y = 4.05 \sin(2.45x + 1.57)$



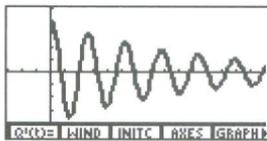
$[-10, 10] \times [-20, 20]$



2c. $y = 1.93 \sin(2.24x - 1.57)$



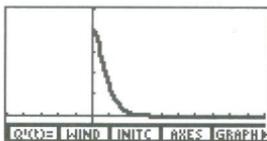
$[-3, 3] \times [-5, 5]$



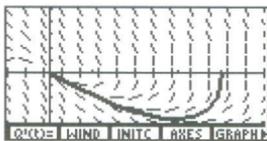
- 3a. Trace until the amplitude is less than 1. This happens after about 13 seconds.



- 3c. $[-5, 5] \times [-10, 10]$



- 4a.



- 4b. $[-1, 5] \times [-5, 5]$

- 4c. The spring descends to the equilibrium point and then stays there. This might happen if the medium creating friction were much more dense than air. One example might be the oil in a shock absorber system.