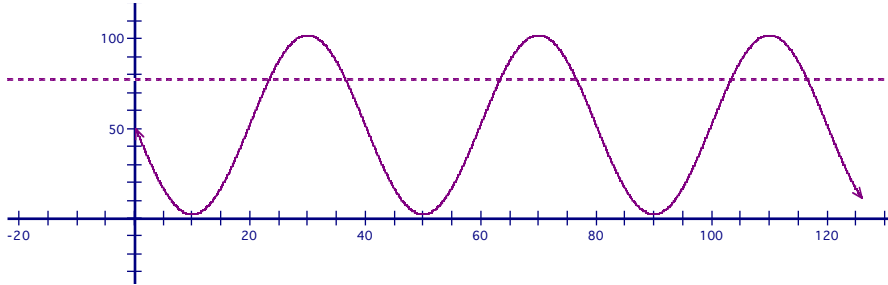


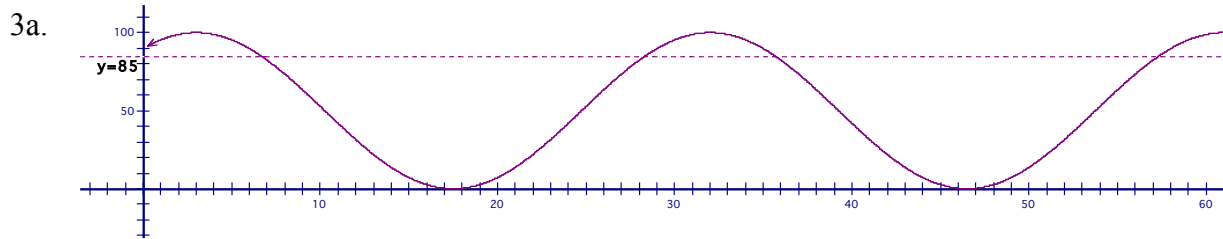
Day 4 CW & HW: Modeling Part II

Selected Solutions

- 1a. 40 sec
- 1b. 2 ft.
- 1c. 102 ft.
- 1d.



- 1ei. 6 solutions (see 6 places where the graph intersects the line)
- 1eii. $23.\bar{3}^\circ$, $36.\bar{6}^\circ$, $63.\bar{3}^\circ$, $76.\bar{6}^\circ$, $103.\bar{3}^\circ$, or $116.\bar{6}^\circ$



3b.
$$V(t) = 50 \cos\left[\frac{360}{29}(t - 3)\right] + 50$$

- 3c. Days 7, 28, 36, or 57 i.e. Jan. 7, Jan. 28, Feb. 5, or Feb. 26
(Answers confirmed on the graph where the curve intersects the line $y = 85$.)