

WKS7 - SHM

① $\theta = 56.3099^\circ$

② $\theta = 50.9245^\circ$

③ $\theta = 40.6013^\circ$

④ (a) 9

(b) $\frac{3}{5}$

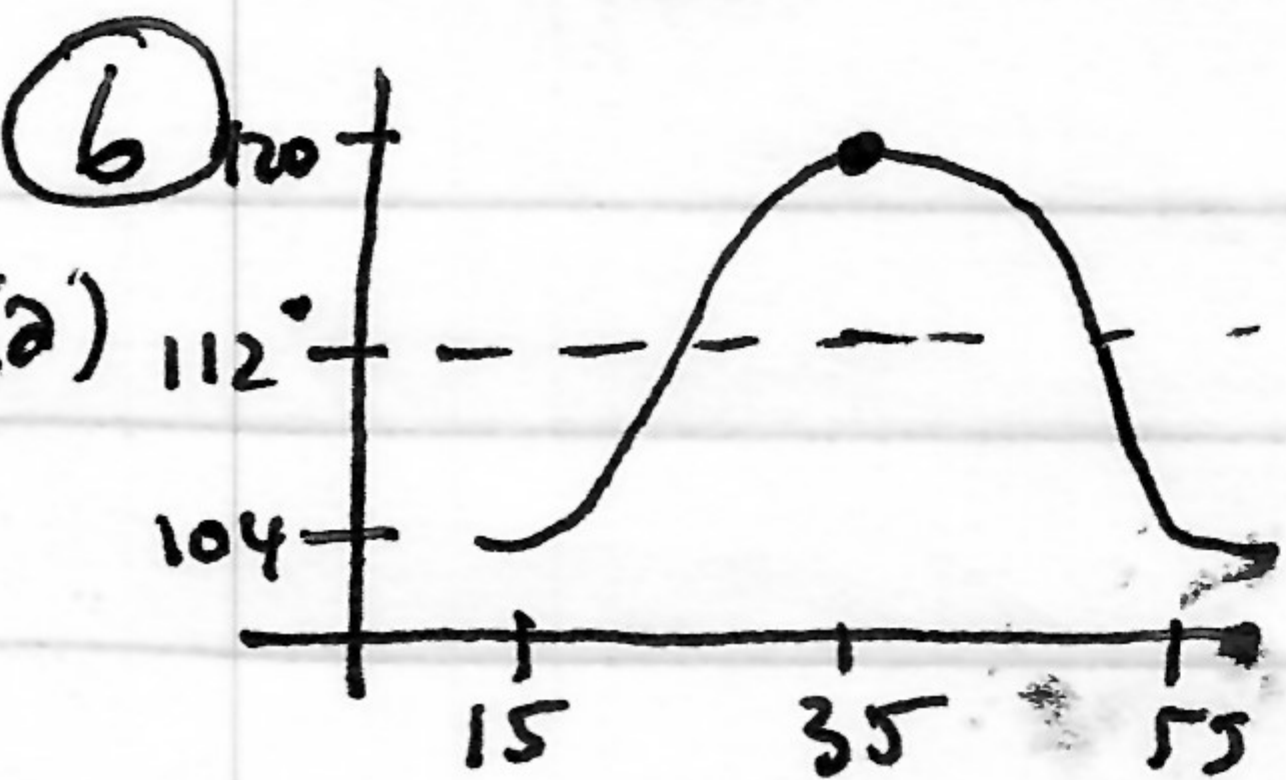
(c) 9

(d) $\frac{5}{12}$

⑤ (a) 10 meters

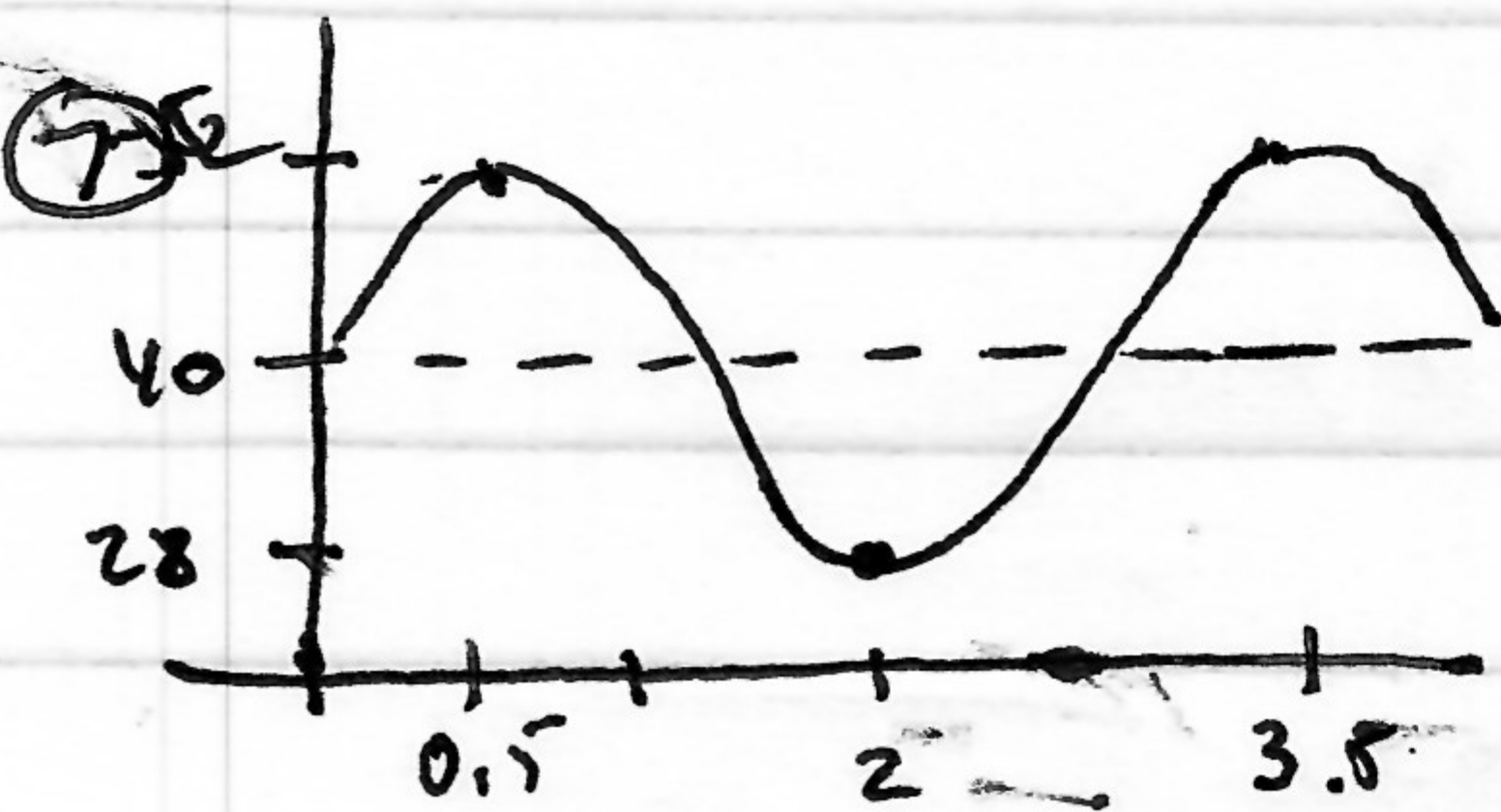
(b) $\frac{2\pi}{5}$ secs

(c) $\frac{5}{2\pi}$ oscillations/sec



(b) $y = 8 \cos \frac{\pi}{2} (x - 35) + 112$

(c) $y(0) = 117.6569^\circ \text{ F}$

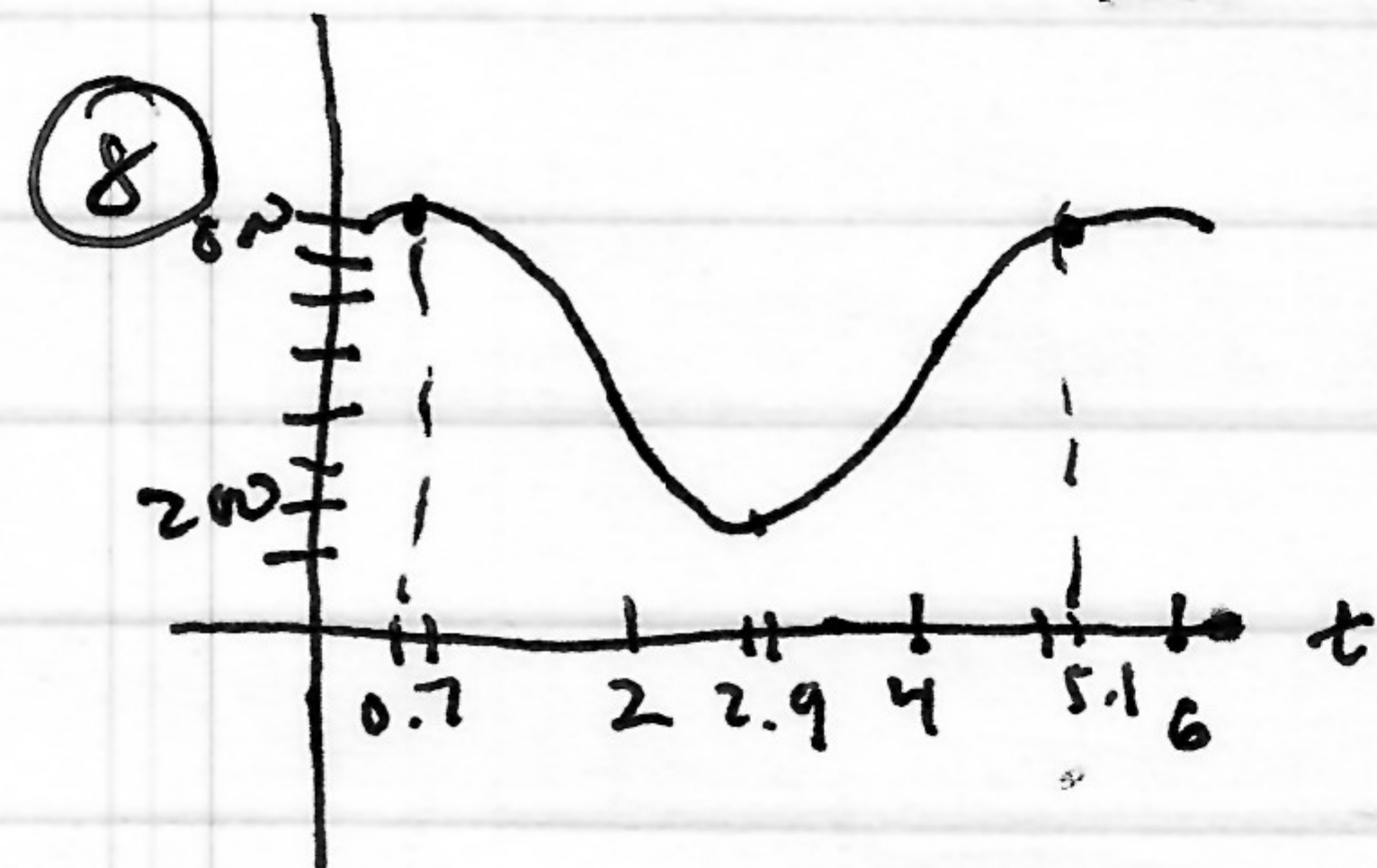


(b) $y = 12 \cos \frac{\pi}{1.3} (t - 0.5) + 40$

(c) $y(12) = 29.3745 \text{ secs}$

(d) $t = 44.2553 \text{ secs}$

(e) 0.2576 secs



(b) $y = 300 \cos \frac{\pi}{2.2} (t - 0.7) + 500$

(c) $y(7) = 227 \text{ foxes}$

(d) $2.3 \leq t \leq 3.5 \text{ years}$