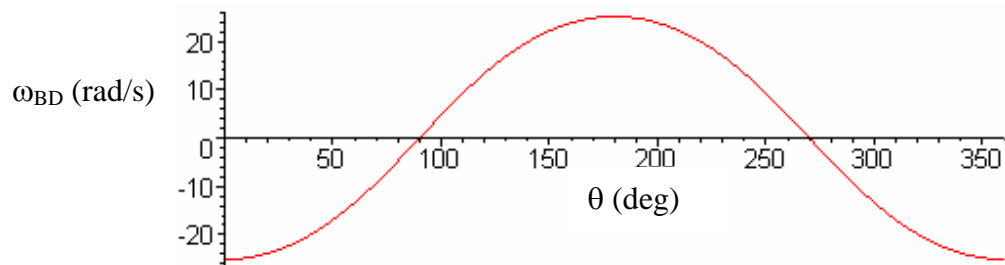
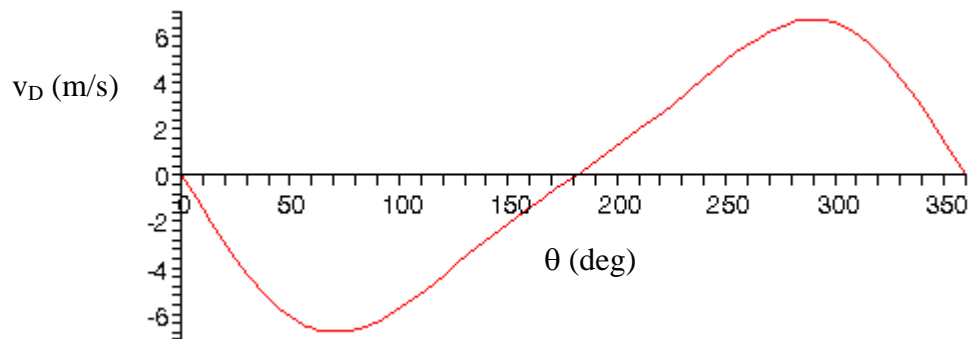


### Problem P6



### Problem P7

$$\omega_{\text{gear}} = 9.85 \text{ rad/s}$$

### Problem P8

$$h_{\text{final}} = \frac{1}{12} \frac{R^2 \omega^2 (1 + 4 \cos(\theta) + 4 \cos(\theta)^2)}{g}$$