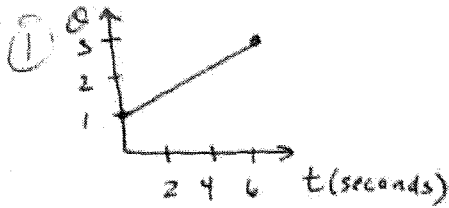
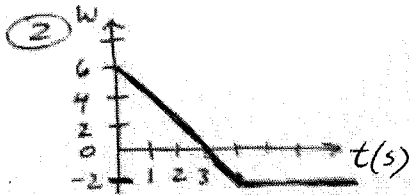


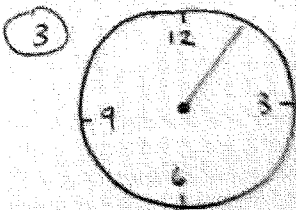
Rotation & Gears WS



Find ω at $t = 4s$



- a) Find $\Delta\theta$ in radians & revolutions from 0 to 4 sec
 b) $\alpha = ?$ at $t = 3$ sec. c) $\alpha = ?$ at $t = 5$ sec.
 d) Find $\bar{\omega}$ and $\bar{\alpha}$ from $t = 0$ to 4 sec.



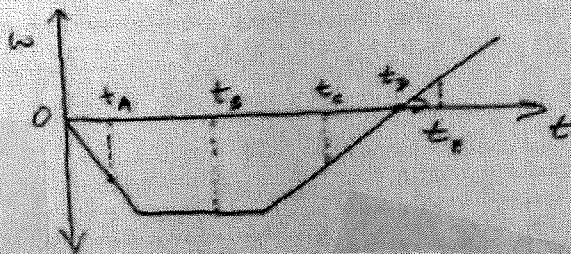
The second hand is .16 m long. Find ω , α , v , $a_{\text{Tangential}}$, $a_{\text{centripetal}}$, a for the tip of the second hand.

④ Find ω , α , v , a_{tan} , a_c and a for the midpoint of the second hand.

⑤

The belt does not slip. $r_A = 0.1$ m $r_C = .3$ m
 From rest, wheel A accel. at constant $\alpha_A = .6 \text{ rad/s}^2$
 How long does it take ω_C to reach 5 rad/s ?

⑥ Merry-go-round:



- Rank the following for a person sitting near the rim at moments A, B, C, D, E.
- a) Most positive to most negative: $\alpha = \text{slope}$
 b) High to low: angular speed: ω
 c) High to low: magnitude of a_T
 d) High to low: magnitude of a_R or a_C