8-1)

$\alpha = 1.5$ rad/s^2 $\quad \omega_f = 36$ rad/s $\quad \omega_i = 0$ (starts from rest)
$\alpha = [\omega_f - \omega_i]/t \rightarrow t = [\omega_f - \omega_i]/\alpha = [36 - 0]/1.5 =$ 24 sec

$\Delta\theta = \omega_{AVE}\, t = ([\omega_f + \omega_o]/2)t = ([36 + 0]/2)24 =$ 432 radians