

$$W\sigma^2 = 2\phi$$

$$\phi = W\sigma^2 / 2\alpha$$

$$\phi = (200\text{rev/min})^2 / 2 \cdot 40\text{rev/min}^2$$

$$\phi = 500\text{rev}$$

2da Etapa

$$W_o = 200 \text{ rev/min}$$

$$\alpha = 0 \text{ rev/min}^2$$

$$\phi = ?$$

$$t_2 = ?$$

$$\phi = \phi_1 + \phi_2 + \phi_3$$

$$3100 \text{ rev} = 10 \text{ rev} + \phi_2 + 500 \text{ rev}$$

$$\phi_2 = 3100 \text{ rev} - 510 \text{ rev}$$

$$\phi_2 = 2590 \text{ rev}$$

$$\phi = \phi_1 + W_o \cdot t - \frac{1}{2} \alpha t^2$$

$$\phi = W_o \cdot t$$

$$t_2 = 2590 \text{ rev} / 200 \text{ rev/min}$$

$$t_2 = 12.95 \text{ min}$$

$$t = t_1 + t_2 + t_3$$

$$t = 0.1 \text{ min} + 12.95 \text{ min} + 5 \text{ min}$$

$$t = 18.05 \text{ min}$$