$$v_{TCP} = r \cdot \omega \qquad (1)$$

v_{TCP}: m/s, r: m, ω: RAD/S

$$1\ RPM = \frac{2\pi}{60}\ RAD/S \qquad (2)$$

$$RPM_B = RPM_A \cdot \frac{t_A}{t_B} \qquad (3)$$

(1), (2) ... (3)

$$v_{TCP} = r \cdot RPM_A \cdot \frac{t_A}{t_B} \cdot \frac{2\pi}{60}$$

$$\Rightarrow \frac{v_{TCP} \cdot t_B \cdot 60}{r \cdot t_A \cdot 2\pi} = RPM_A$$