

Rotations of motor per minute (rpm) = 200

No. of teeth on driver gear = 25

No. of teeth on driven gear = 40

∴ According to condition,

$$\begin{aligned}\text{Speed of driver gear} &= \frac{\text{No. of teeth on driver gear} \times \text{rpm}}{\text{No. of teeth on driven gear}} \\ &= \frac{25 \times 200}{40}\end{aligned}$$

$$\boxed{\text{Speed of driver gear} = 125 \text{ rpm}}$$



