

## Calculations

### Transmission ratio "i," computing

#### Transmission ratio

Transmission ratio =  $\frac{\text{No. of teeth driven gear}}{\text{No. of teeth drive gear}}$

Ratios	Formula
<b>iG</b> = gear ratio	ZG2 : ZG1
<b>iA</b> = axle ratio	ZA2 : ZA1
<b>iov</b> = overall ratio	iG x iA

#### Example:

	5th Gear	Final drive
Drive gear	ZG1 = 38	ZA1 = 10
Driven gear	ZG2 = 30	ZA2 = 37

#### Calculating:

$$\begin{aligned} \mathbf{iG} &= 30 : 38 = 0.789 \\ \mathbf{iA} &= 37 : 10 = 3.700 \\ \mathbf{iov} &= (30 : 38) \times (37 : 10) = 0.789 \times 3.700 = 2.921 \end{aligned}$$