

Metric:

$$\Rightarrow \frac{d}{N}$$

• $\text{mod} = \frac{\text{pitch circle diameter}}{N(\text{num of teeth})}$

• $\text{outside diameter} = d + 2 \text{ mod}$

• $\text{root diameter} = d - 2.5 \text{ mod}$

• $\text{circular pitch} = \pi \times \text{mod}$

• Addendum: $A = \text{mod}$

• Dedendum: $D = 1.25 \text{ mod}$

• $\text{base diameter} = d \cos \alpha$

Unified (Imperial):

• $\text{DP} = \frac{N}{d}$ ($\text{mod} = \frac{1}{\text{DP}}$)

• $\text{circular pitch} = \frac{\pi}{\text{DP}}$

• $\text{base diameter} = d \cos \alpha$

• $A = \frac{1}{\text{DP}}$

• $D = \frac{1.25}{\text{DP}}$

• $\text{outside diameter} = d + 2 \times \frac{1}{\text{DP}}$

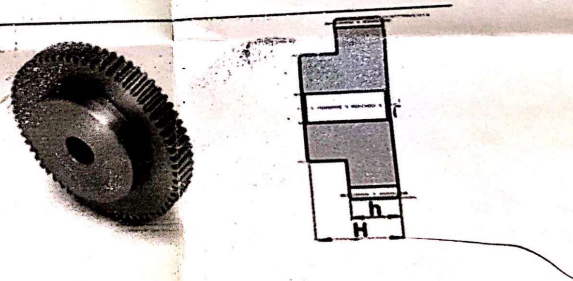
$\Gamma = \frac{\text{base diameter}}{2}$

$\text{plane angle} = \frac{360}{N}$
(4)

• $\text{root diameter} = d - \frac{2.5}{\text{DP}}$

$\alpha = 20$
 $N = 14$

$CP = 18.84$
 $h = 1 \text{ in}$ $H = 1.5 \text{ in}$



with key way

