

Hexadecimal 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
 1 2 3 4 5 6 7 8 9 A B C D E F

$$\dots (16^3 \times n) + (16^2 \times n) + (16^1 \times n) + n$$

Binary $\dots 2^4 + 2^3 + 2^2 + 2^1 + 1$

Decimal to Binary \rightarrow divide by 2 even = 0
remainder = 1

Resistance in parallel: $R_T = \frac{1}{\frac{1}{R_1} + \frac{1}{R_2} + \frac{1}{R_3} \dots}$

Resistance in series: $R_T = R_1 + R_2 + R_3 \dots$

Voltage = Current \times Resistance

Current = $\frac{\text{Voltage}}{\text{Resistance}}$

max input power = input power \times service factor

max output speed = max input speed \times speed reduction ratio $\left(\begin{matrix} 1:16 \\ \rightarrow \frac{1}{16} \end{matrix} \right)$

max input speed = input speed \times service factor

output torque = $\frac{\text{input speed} \times \text{input torque}}{\text{output speed}}$

input torque = $\frac{\text{output speed} \times \text{output torque}}{\text{input speed}}$

output teeth = $\frac{\text{input speed} \cdot \text{input teeth}}{\text{output speed}}$