

$$16: \quad \frac{1}{3} \div \frac{1}{9} = \frac{1}{3} ?$$

Firstly, whatever the result of dividing $\frac{1}{3}$ by $\frac{1}{9}$, it cannot be $\frac{1}{3}$! The only way you can divide a number and end up where you started, is to divide by one. If, instead of dividing by 1, which would leave the number unchanged, we divide by something 9 times smaller than 1, namely $\frac{1}{9}$, the result becomes 9 times bigger. (Dividing between fewer mouths yields larger portions.)

Dividing $\frac{1}{3}$ by $\frac{1}{9}$ would make the $\frac{1}{3}$ 9 times bigger,

$$\begin{aligned} \text{i.e. } & \frac{1}{3} \times 9 \\ & = \frac{9}{3} = 3 \end{aligned}$$

$$\text{So, } \frac{1}{3} \div \frac{1}{9} = \frac{1}{3} \times 9 = 3$$

And generally,

$$\frac{k}{\frac{1}{d}} = k \times d$$