16: \( \frac{1}{3} \div \frac{1}{9} = \frac{1}{3} \) ?

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,

\[
\text{i.e. } \frac{1}{3} \times 9 = \frac{9}{3} = 3
\]

So, \( \frac{1}{3} \div \frac{1}{9} = \frac{1}{3} \times 9 = 3 \)

And generally,

\[
\frac{k}{\frac{1}{d}} = k \times d
\]