

Prime factorization of 12 using continuous division:

$$\begin{array}{r|l} 2 & 12 \\ 2 & 6 \\ 3 & 3 \\ \hline & 1 \end{array}$$

Thus, the prime factorization of 12 is $2^2 \times 3$.
using continuous division:

$$\begin{array}{r|lll} 2 & 12 & 16 \\ 2 & 6 & 8 \\ \hline & 3 & 4 \end{array}$$

Thus, the prime factorization of 12 is $2^2 \times 3$.
using continuous division:

$$\begin{array}{r|llll} 2 & 4 & 6 & 16 \\ \hline & 2 & 3 & 8 \end{array}$$

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$$\begin{array}{r|llll} 2 & 4 & 6 & 16 \\ 2 & 2 & 3 & 8 \\ \hline & 1 & 3 & 4 \end{array}$$

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$$\begin{array}{r|llll} 2 & 2 & 3 & 6 \\ 3 & 1 & 3 & 3 \\ \hline & 1 & 1 & 1 \end{array}$$

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