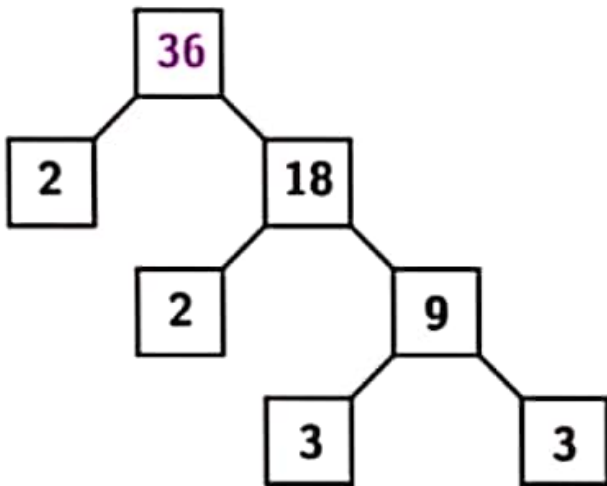


## Prime Factorization

### Using Factor Trees

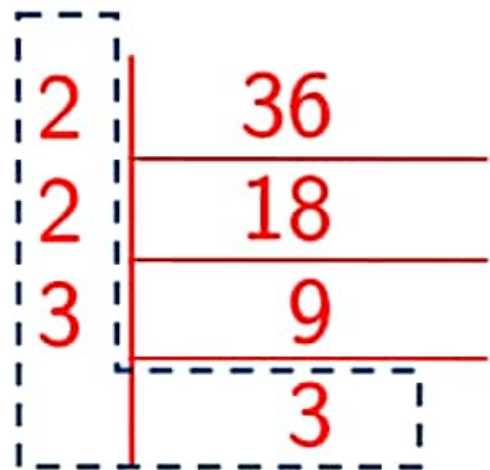
Find the prime factors of 36



$$36 = 2 \times 2 \times 3 \times 3$$

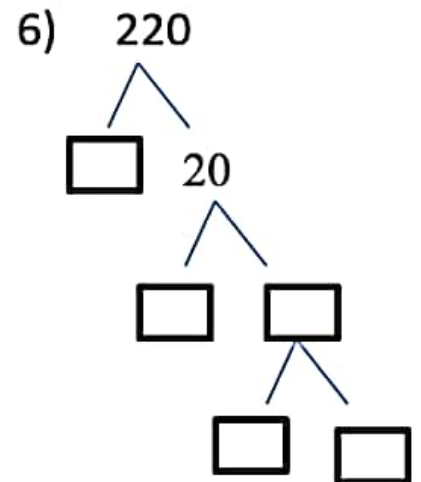
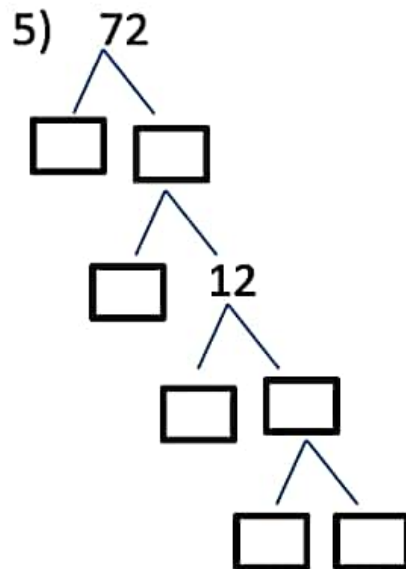
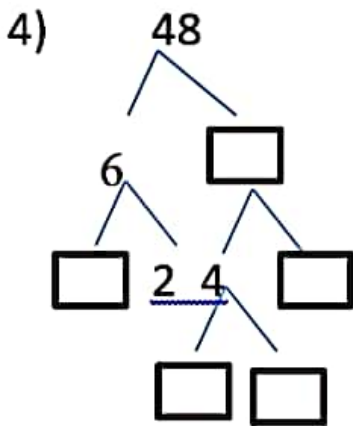
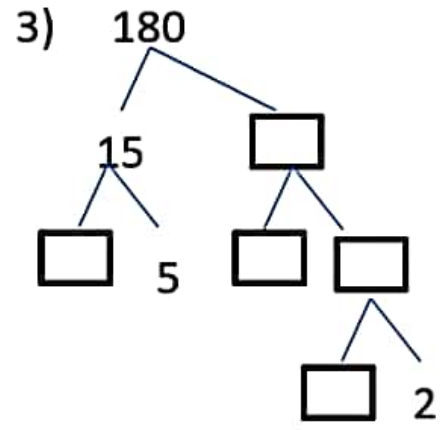
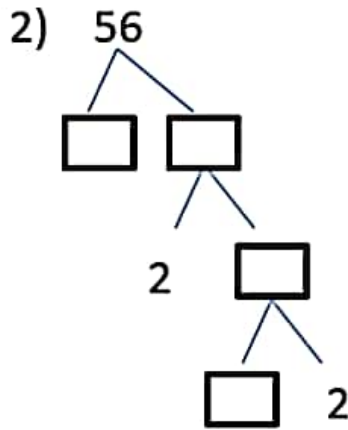
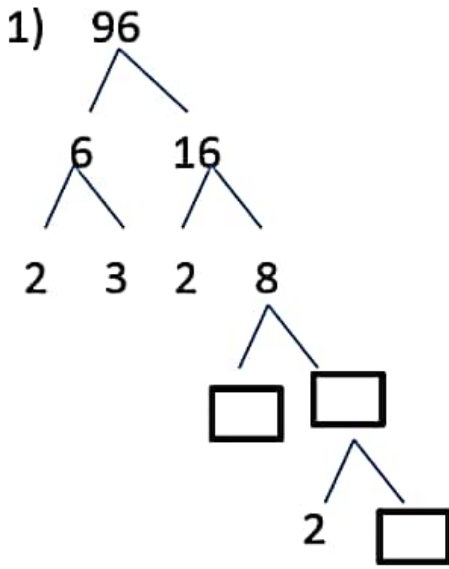
### Using Repeated Division

Find the prime factors of 36



$$36 = 2 \times 2 \times 3 \times 3$$

Complete the following factor tree.



Complete each division ladder

7)

$$\begin{array}{r|l} 2 & 24 \\ \hline 2 & 12 \\ \hline & \\ \hline 2 & \\ \hline 3 & \\ \hline & 1 \end{array}$$

$24 = 2 \times 2 \times 2 \times 3$

8)

$$\begin{array}{r|l} 2 & 84 \\ \hline & 42 \\ \hline & \\ \hline & \\ \hline & 1 \end{array}$$

$84 = \dots \times \dots \times \dots \times \dots$

9)

$$\begin{array}{r|l} 3 & 75 \\ \hline & \\ \hline & \\ \hline & 1 \end{array}$$

$75 = \dots$

10)

$$\begin{array}{r|l} & 1575 \\ \hline & \\ \hline & \\ \hline & \\ \hline & 1 \end{array}$$

$1575 = \dots \times \dots \times \dots \times \dots$