1. Find the prime factorization of 1240 using three different methods

Ans:

Division Method:

$$\begin{array}{r|l} 2 & 1240 \\ 2 & 620 \\ 2 & 310 \\ 5 & 155 \\ & 31 \end{array}$$

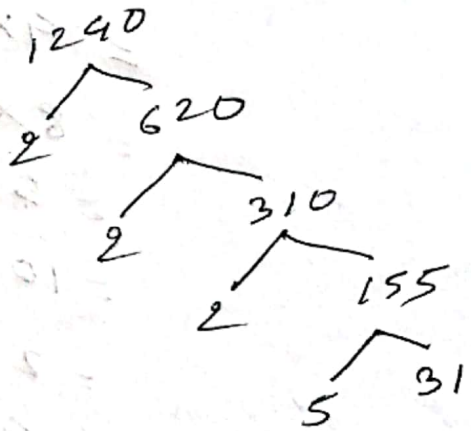
Multiplication Method:

$$\begin{aligned} 1240 &= 2 \times 620 \\ &= 2 \times 2 \times 310 \\ &= 2 \times 2 \times 2 \times 155 \\ &= 2 \times 2 \times 2 \times 5 \times 31 \end{aligned}$$

Multification Method:

$$\begin{aligned} 1240 &= 2 \times 620 \\ &= 2 \times 2 \times 310 \\ &= 8 \times 155 \\ &= 5 \times 248 \\ &= 10 \times 124 \\ &= 20 \times 62 \\ &= 40 \times 31 \end{aligned}$$

Tree Method:



The prime factorization of 1240 is $= 2^3 \cdot 5 \cdot 31$

Ans.

2. Find the all factors of 1240

$$2 \mid 1240$$
$$2 \mid 620$$
$$2 \mid 310$$
$$5 \mid 155$$
$$31$$

the prime factor of 1240 is $= 2^3 . 5 . 31$

Total Number of factors of 1600 is

$= 2^3 . 5 . 31$

$= (3+1) . (1+1) . (1+1)$

$= 4 . 2 . 2$

$= 16$

Calculation of all Factors:

$1240 = 1 \times 1240$

$= 2 \times 620$

$= 4 \times 310$

$= 8 \times 155$

$= 5 \times 248$

$= 10 \times 124$

$= 20 \times 62$

$= 40 \times 31$

The Factors of 1240 are: 1, 2, 4, 8, 5, 10, 20, 40, 31, 62, 124, 248, 155, 310, 620, 1240

Q.

3. Find the all prime factor of 1240

Ans:

$$\begin{array}{r|l} 2 & 1240 \\ \hline 2 & 620 \\ \hline 2 & 310 \\ \hline 5 & 155 \\ \hline & 31 \end{array}$$

prime factors of 1240 are $\rightarrow 2^3, 5, 31$ ans

4. Find the all composite factor of 1240

The composite number of 1240 are:

$1240 = 1 \times 1240$

$= 2 \times 620$

$= 4 \times 310$

$= 5 \times 248$

$= 8 \times 155$

~~$= 10 \times 124$~~

$= 10 \times 124$

$= 20 \times 62$

$= 31 \times 40$

composite factors of 1240 are: 1, 4, 8, 10, 20, 40, 62, 124, 155, 248, 310, 620, 1240