

Q:01

Find the prime factorization of 1240 using three different methods.

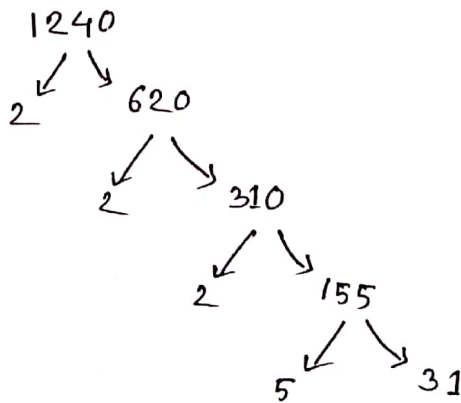
Answer:

i) Division Method:

$$\begin{array}{r}
 2 \overline{)1240} \\
 \underline{2\ 620} \\
 2 \overline{)310} \\
 \underline{2\ 155} \\
 5 \overline{)155} \\
 \underline{31}
 \end{array}$$

Prime factor: $2^3 \cdot 5^1 \cdot 31^1$

ii) Tree Diagram:



Prime factor: $2^3 \cdot 5^1 \cdot 31^1$

iii) Multiple Method:

$$1240 = 2 \times 620 = 2 \times 2 \times 310 = 2^3 \times 2 \times 155 \\ = 2^3 \times 5 \times 31$$

$$\text{Prime factors} = 2^3 \cdot 5^1 \cdot 31^1$$

Q:02

Find the all factors of 1240

Answer:

$$\text{Total number of factors, } 1240 = (3+1)(1+1)(1+1) \\ = 4 \cdot 2 \cdot 2 \\ = 16$$

Calculation of all factors:

$$1240 = 1 \times 1240 \\ = 2 \times 620 \\ = 4 \times 310 \\ = 5 \times 248 \\ = 8 \times 155 \\ = 10 \times 124 \\ = 20 \times 62 \\ = 31 \times 40$$

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

Q:3

Find the all prime factors of 1240

Answer :

Prime factors of 1240 are : 2, 5, 31

Q:4

Find the all composite factors of 1240 :

Ans:

Composite factors of 1240 are :

1, 4, 8, 10, 20, 40, 62, 124, 155, 248, 310,
620, 1240