

MAT-111

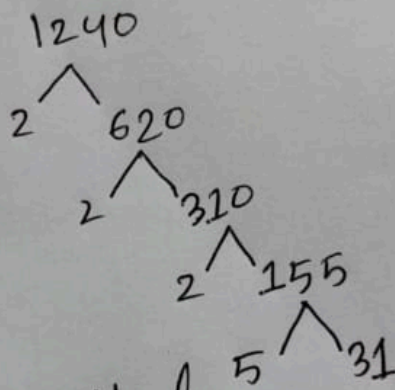
Numbering System

01.

Division method:-

$$\begin{array}{r} 2 \overline{) 1240} \\ \underline{2 \phantom{0} 620} \\ 2 \phantom{0} 310 \\ \underline{2 \phantom{0} 155} \\ 5 \phantom{0} 31 \end{array}$$

Tree diagram:-



Multiplication method

$$1240 = 2 \times 620$$

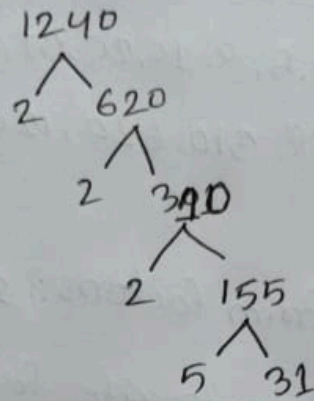
$$= 2 \times 2 \times 310$$

$$= 2 \times 2 \times 2 \times 155$$

$$= 2 \times 2 \times 2 \times 5 \times 31$$

$\therefore$  Therefore, the factorization of  $1240 = 2^3 \cdot 5 \cdot 31$

02.



therefore, the prime factorization of 1240  
 $= 2^3 \cdot 5 \cdot 31$

the total numbers of factors are,

$$(3+1)(1+1)(1+1)$$

$$= 4 \cdot 2 \cdot 2$$

$$= 16$$

Here, calculation for all factors

$$1240 = 1 \times 1240$$

$$= 2 \times 620$$

$$= 4 \times 310$$

$$= 5 \times 248$$

$$= 8 \times 155$$

$$= 10 \times 124$$

$$= 20 \times 62$$

$$= 31 \times 40$$

∴ the factors of 1240 are

1, 2, 4, 5, 8, 10, 20, 31, 40, 62, 124, 155

248, 310, 620, 1240

03. All the Prim factors: 2, 5, 31

04. All the composite factors of 1240 are

4, 8, 10, 20, 40, 62, 124, 155, 248

310, 620, 1240