

# Sec - "Y" MAT 111.

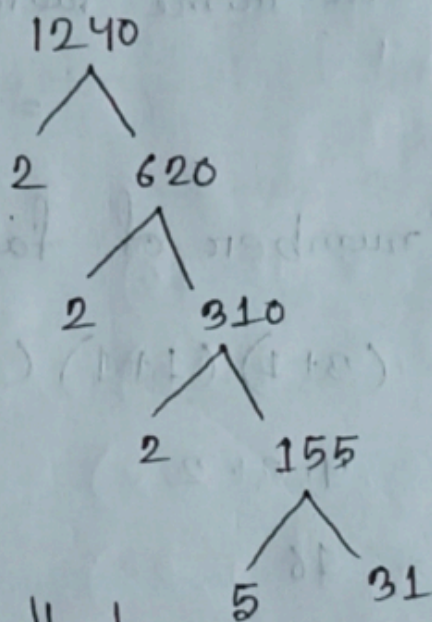
## Numbering system.

01.

Division method :-

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

Tree diagram :-



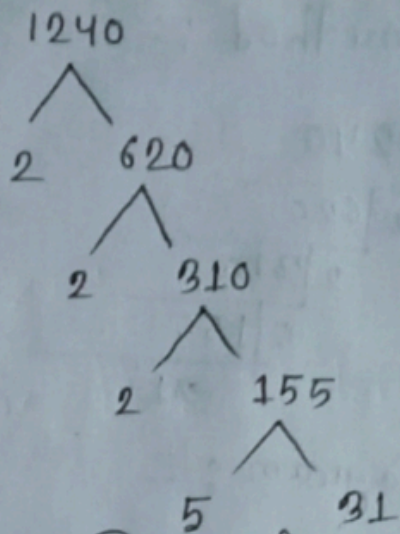
Multiplication method :-

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

$\therefore$  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 number of factors are,

$$(3+1)(1+1)(1+1)$$
$$= 4 \cdot 2 \cdot 2$$
$$= 16$$

Here,

calculation for all factors,

$$1240 = 1 \times 1240$$
$$= 2 \times 620$$
$$= 4 \times 310$$
$$= 5 \times 248$$
$$= 8 \times 155$$

P.T.O.



$$= 10 \times 124$$

$$= 20 \times 62$$

$$= 31 \times 40$$

$\therefore$  the factors of 1240 are,

1, 2, 4, 5, 8, 10, 20, 31, 40, 62, 124,  
155, 248, 310, 620, 1240.

03. All the Prime factors of 1240 : 2, 5, 31.

04. All the composite factors of 1240 : 4, 8, 10,  
20, 40, 62, 124, 155, 248,  
310, 620, 1240.