MATH-111

Question: 1

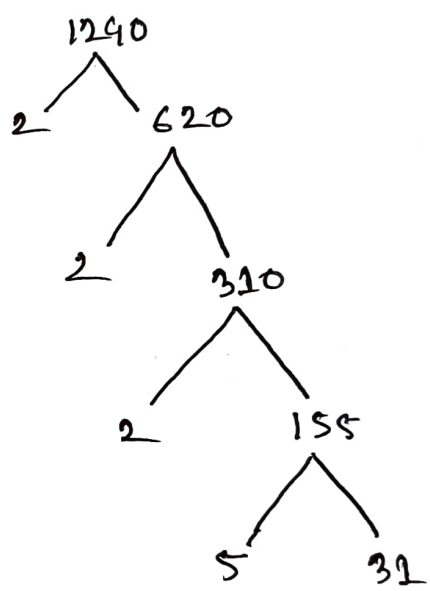
Find the prime factorization of 1240 using three different methods.

Ans: to the ques no 1 :

(i) Division method :-

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

(ii) Tree diagram :-



(iii) Multiplication method :-

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

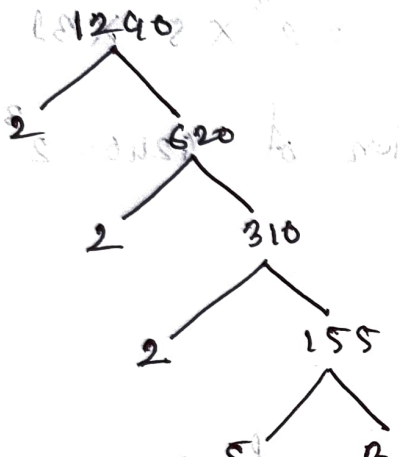
Therefore, the prime factorization of 1240 is:

$$= 2^3 . 5 . 31$$

Question:2 factors

Finding the all ~~factions~~ of 1240 using ~~tree~~ diagram.

(i) Tree diagram:-



Therefore, the prime factorization of 1240 is $= 2^3 . 5 . 31$

∴ So, the total number of ~~factio~~ factors of 1240 is $= 2^3 . 5 . 31$

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

$= 4 . 2 . 2$

$= 16 .$

∴ the numbers are : 1, 2, 4, 5, 8, 10, 20, 31, 40, 62, 124, 155, 248, 310, 620, 1240 .

Ques: 3

Find the all prime factors of 1240

$\therefore 1240 = 2 \times 620$

$= 2 \times 2 \times 310$

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

$\therefore$ Therefore, the prime factors of 1240 = 2, 5, 31.

Ques: 4

Find all the composite factors of 1240

Composite factors :

$\therefore$ 1240 = 4, 8, 10, 20, 40, 62, 125, 248, 155, 310, 620, 1240,