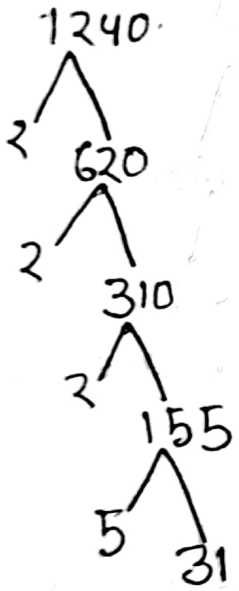
① Finding the prime factorization of 1240 using three different method.

Ans: ① division method:

2	1240
2	620
2	310
5	155
	31

Tree diagram:



(iii) multiplication method:

$1240 = 2 \times 620$

$= 2 \times 2 \times 310$

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

$= 2^3 \times 5 \times 31$

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

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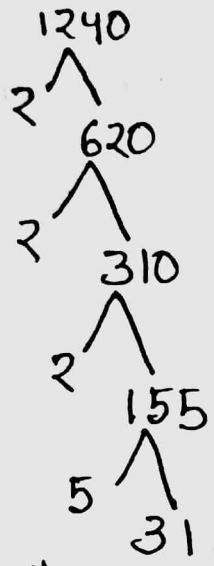
(2) finding the all factors of 1240 using tree diagram.

Tree diagram:



Therefore the prime factorization of 1240 is

$2^3, 3, 5, 31$

∴ so the total number of factor is

$$= 2^3 \cdot 5, 31$$
$$= (3+1)(1+1)(1+1)$$
$$= 4 \cdot 2 \cdot 2$$
$$= 16$$

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③ finding the all prime factor of 1240

2	1240
2	620
2	310
5	155
	31

∴ Therefore the prime factorization of 1240 is $2^3; 5.31.$

④ finding the all composite factor of 1240

composite factor

1240 = 2, 4, 8, 5, 31, 155, 310, 620.

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