Evaluation questions

1. Write all the factors of:

i) 15

Solution:

15 = 1 × 15
3 × 5

Factors of 15 = 1, 3, 5 and 15.

ii) 55

Solution:

55 = 1 × 55
5 × 11

Factors of 55 = 1, 5, 11 and 55.

iii) 48

Solution:

48 = 1 × 48
2 × 24
3 × 16
4 × 12
6 × 8

Ans- So, the factors of 48 are 1, 2, 3, 4, 6, 8, 12, 16, 24, 48.

iv) 36

Solution:

36 = 1X36
2X18
3X12
4X9

Ans- So, the factors of 36 are 1, 2, 3, 4, 9, 12, 18 and 36.

v) 84

Solution:

84 = 1X84
2X42
3X28
4X21
6X14
7X12

Ans- So, the factors of 84 are 1, 2, 3, 4, 6, 7, 12, 14, 21, 28, 42 and 84.

3. Write all prime numbers between:

i) Less than 25

Solution:

2,3,5,7,11,13,17,19,23.

ii) between 15 and 35

Solution:

17,19,23,29,31

iii) between 8 and 75

Solution:

11,13,17,19,23,29,31,37,41,43,47,53,59,61,67,71,73

3. Write the prime numbers from:

i) 5,7,11,13,17,19,23,29,31,37,41,43

ii) 2,3,5,7,11,13,17,19 and 23,29,31.

iii) 11,13,17,19,23,29,31,37,41 and 43.

4. Write the prime factors of:

i) 16

Solution:

2|16
2|8
2|4
2

$16 = 2 \times 2 \times 2 \times 2$

So, the prime factor of 16 is 2

ii) 3|27
3|9
3

27 = 3×3×3
So, the prime factors of 27 is 3.

iii) 35
Solution:
5|35.
7

35 = 5×7 Prime
So, the factors of 35 are 5 and 7.

iv) 49
Solution:
7|49
7

49 = 7×7
So, the prime factors of 49 is 7.

~~5.i) P_6~~ 5)iv) P_{42}
~~Solution:~~

2|42
3|21
7

42 = 2×3×7
So, prime factors of 42 are 2, 3 and 7

~~i) P_6~~
~~Solution:~~

HW
22/6/21

HOMEWORK

Exercise 8(A)

5. i) Prime factors of 6 = 2 and 3

$$\begin{array}{r|l} 2 & 6 \\ \hline 3 & \end{array}$$

$6 = 2 \times 3$

ii) Prime factors of 24 =

$$\begin{array}{r|l} 2 & 24 \\ \hline 2 & 12 \\ \hline 2 & 6 \\ \hline 3 & \end{array}$$

$24 = 2 \times 2 \times 2 \times 3$

So, Prime factors of 24 are 2 and 3.

iii) P_{50}

Solution:

$$\begin{array}{r|l} 2 & 50 \\ \hline 5 & 25 \\ \hline 5 & \end{array}$$

$50 = 2 \times 5 \times 5$

So, prime factors of 50 are 2 and 5.