Playing with Numbers Ex 2.4 Q1

Answer :

(i) 24 = 2 × 3 × 4 is not a prime factorisation as 4 is not a prime number.
(ii) 56 = 1 × 7 × 2 × 2 × 2 is not a prime factorisation as 1 is not a prime number.
(iii) 70 = 2 × 5 × 7 is a prime factorisation as 2, 5, and 7 are prime numbers.
(iv) 54 = 2 × 3 × 9 is not a prime factorisation as 9 is not a prime number.

Playing with Numbers Ex 2.4 Q2

Answer :

(i) 216

We have:

2	216
2	108
2	54
3	27
3	9
3	3
	1

∴ Prime factorisation of 216 = 2 × 2 × 2 × 3 × 3 × 3

(ii) 420

We have:

2	420
2	210
3	105
5	35
7	7
	1

∴ Prime factorisation of 420 = 2 × 2 × 3 × 5 × 7

(iii) 468

We have:

2	468
2	234
3	117
3	39
13	13
	1

∴ Prime factorisation of 468 = 2 × 2 × 3 × 3 × 13

(iv) 945

We have:

3	945
3	315
3	105
5	35
7	7
	1

∴ Prime factorisation of 945 = 3 × 3 × 3 × 5 × 7

(v) 7325

We have:

5	7325
5	1465
293	293
	1

∴ Prime factorisation of 7325 = 5 × 5 × 293

(vi) 13915

We have:

5	13915
11	2783
11	253
23	23
	1

∴ Prime factorisation of 13915 = 5 × 11 × 11 × 23

********** END **********