

(i) Cubes of an even number are 216, 8000, 4096.

(ii) Cubes of an odd number are 729, 3375, 125, 343, 9261

(7) Solution:- The prime factor of 1323 are = $3 \times 3 \times 3 \times 7 \times 7$
 $(3 \times 3 \times 3) \times 7 \times 7$
 Clearly, 1323 must be multiplied by 7

(8) Sol: The prime factor of 8768 are

2	8768	
2	4384	
2	2192	
2	1096	= $2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 137$
2	548	= $(2 \times 2 \times 2) \times (2 \times 2 \times 2) \times 137$
2	274	
137	137	
	1	

Clearly, 8768 must be divided by 137

(9) Sol: -

3	27783	
3	9261	
3	3087	= $3 \times 3 \times 3 \times 3 \times 7 \times 7 \times 7$
3	1029	= $(3 \times 3 \times 3) \times (7 \times 7 \times 7) \times 3$
7	343	
7	49	
7	7	
	1	

Clearly, 27783 must be multiplied by $3 \times 3 = 9$

(10) Sol:- The prime factors of 8640 are

2	8640
2	4320
2	2160
2	1080
3	360
3	120
3	40
5	8
	1

$8640 = 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 3 \times 3 \times 3 \times 5$
 $= (2 \times 2 \times 2) \times (2 \times 2 \times 2) \times (3 \times 3 \times 3) \times 5$

Clearly, 8640 must be divided by 5

(11) Sol:-

The prime factors of 77175 are

3	77175
3	25725
5	8575
5	1715
7	245
7	35
7	5
	1

$77175 = 3 \times 3 \times 5 \times 5 \times 7 \times 7 \times 7$

$= (7 \times 7 \times 7) \times 3 \times 3 \times 5 \times 5$

Clearly, 77175 must be multiplied by $3 \times 5 = 15$