Exercise - 4 (A)

Find the cube of

i) $7 = 7^3 = 7 \times 7 \times 7 = 343$

ii) $11^3 = 11 \times 11 \times 11 = 1331$

iii) $23 - 23^2 = 23 \times 23 \times 23 = 12167$

iv) $16 = 16^3 = 16 \times 16 \times 16 = 40096$

v) $31 = 31^3 = 31 \times 31 \times 31 = 29791$

vi) $42 = 42^3 = 42 \times 42 \times 42 = 74088$

vii) $54 = 54^3 = 54 \times 54 \times 54 = 157464$

Q - Find which of the following are perfect cubes?

i) 243 →

3	243
3	81
3	27
3	9
	3

$243 \rightarrow 3 \times 3 \times 3 \times 3 \times 3$

∴ 243 is not a perfect cube.

ii) 588 →

2	588
2	294
3	147
7	49
	7

$588 = 2 \times 2 \times 3 \times 7 \times 7$

∴ 588 is not a perfect cube.

iii) 1331 →

11	1331
11	121
	11

$1331 = 11 \times 11 \times 11$

∴ 1331 is a perfect cube.

iv) 24000 =

2	24000
2	12000
2	6000
5	3000
5	600
5	120
2	24
2	12
2	6
	3

$24000 = 2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 3 \times 5 \times 5 \times 5$

∴ 24000 is not a perfect cube.

v) 1728 =

2	1728
2	864
2	432
2	216
2	108
2	54
3	27
3	9
	3

$1728 = \underbrace{2\times2\times2}\times\underbrace{2\times2\times2}\times\underbrace{3\times3\times3}$

$\therefore$ 1728 is a perfect cube.