Ch-4

Cube And Cube Roots

Ex-4(A)

1) i) $7 = 7^3 = 7 \times 7 \times 7 = 343$
ii) $11 = 11^3 = 11 \times 11 \times 11 = 1331$
iii) $16 = 16^3 = 16 \times 16 \times 16 = 4096$
iv) $23 = 23^3 = 23 \times 23 \times 23 = 12,167$
v) $31 = 31^3 = 31 \times 31 \times 31 = 29791$
vi) $54 = 54^3 = 54 \times 54 \times 54 = 157464$

2) i) 243 = No
ii) 588 = No
iii) 1331 = Yes
iv) 24000 = No
v) 1728 = Yes
vi) 1988 = No

3) i) $2.1 = 2.1^3 = 2.1 \times 2.1 \times 2.1 = 9.261$
ii) $0.4 = 0.4^3 = 0.4 \times 0.4 \times 0.4 = 0.064$
iii) $1.6 = 1.6^3 = 1.6 \times 1.6 \times 1.6 = 4.096$
iv) $2.5 = 2.5^3 = 2.5 \times 2.5 \times 2.5 = 15.625$
v) $0.12 = 0.12^3 = 0.12 \times 0.12 \times 0.12 = 0.001728$
vi) $0.02 = 0.02^3 = 0.02 \times 0.02 \times 0.02 = 0.000004$
vii) $0.8 = 0.8^3 = 0.8 \times 0.8 \times 0.8 = 0.512$

4) i) $\frac{3}{7} = \frac{3}{7} \times \frac{3}{7} \times \frac{3}{7} = \frac{27}{343}$

$\frac{64}{\times 8}$
$\overline{512}$

ii) $\frac{8}{9} = \frac{8}{9} \times \frac{8}{9} \times \frac{8}{9} = \frac{512}{729}$

iii) $\frac{10}{13} = \frac{10}{13} \times \frac{10}{13} \times \frac{10}{13} = \frac{1000}{2197}$

iv) $1\frac{2}{7} = \frac{9}{9} = \frac{9}{7} \times \frac{9}{7} \times \frac{9}{7} = \frac{729}{343} = 2\frac{43}{343}$

v) $2\frac{1}{2} = \frac{5}{2} = \frac{5}{2} \times \frac{5}{2} \times \frac{5}{2} = \frac{125}{8} = 15\frac{5}{8}$

5) i) $-3^3 = -3 \times -3 \times -3 = -27$

ii) $-7^3 = -7 \times -7 \times -7 = -343$

iii) $-18^3 = -18 \times -18 \times -18 = -5832$

iv) $-25^3 = -25 \times -25 \times -25 = -15625$

v) $-30^3 = -30 \times -30 \times -30 = -27000$

vi) $-12^3 = -12 \times -12 \times -12 = -1728$

vii) $-50^3 = -50 \times -50 \times -50 = -125000$