

Cubing a Number

Workout:

Question 1:

- (a) $5 \times 5 \times 5$
(e) $7 \times 7 \times 7$

- (b) $2 \times 2 \times 2$
(f) $0.2 \times 0.2 \times 0.2$

- (c) $9 \times 9 \times 9$
(g) $15 \times 15 \times 15$

- (d) $10 \times 10 \times 10$

Question 2:

- (a) 4^3
(f) 27^3

- (b) 1^3
(g) 500^3

- (c) 6^3

- (d) 11^3

- (e) 0.5^3

Question 3:

- (a) 8
(f) 1000
(l) 3375

- (b) 1
(g) 8000
(m) 1728

- (c) 125
(h) 64
(n) 9261

- (d) 216
(i) 512

- (e) 729
(k) 125000

Question 4:

1, 8, 27, 64, 125, 216, 343, 512, 729, 1000

Question 5:

- (a) 148, 877
(e) 42.875
(i) 2000.376
(m) 1,000,000,000

- (b) 59, 319
(f) 373.248
(j) 0.091125
(n) 1371, 330, 631

- (c) 12, 597, 12
(g) 314.432
(k) 533.411731

- (d) 970, 299
(h) 0.343
(l) 216,000,000

Apply

Question 1:

- (a) Yes. $1 + 8 = 9$ and $3^2 = 9$
(b) Yes. $1 + 8 + 27 = 36$ and $6^2 = 36$
(c) Yes. $1 + 8 + 27 + 64 = 100$ and $10^2 = 100$

Question 2:

$$0.5^3 = 0.125$$

$$0.8^3 = 0.512$$

Question 3:

- (a) -8

- (b) -1

- (c) -1000

- (d) -125

Question 4:

No not always – if you choose consecutive cube numbers with one even and two odd, the answer will be an even number.

Examples:

$$1 + 8 + 27 = 36 \text{ (even)}$$

$$27 + 64 + 125 = 216 \text{ (even)}$$

Question 5:

$$7^3 = 343$$

Question 6:

1, 64, 729