



CUBES AND CUBE ROOTS GRADE 8

I. CHOOSE THE CORRECT OPTION

- 1) The cube of 9 is
a) 27 b) 81 c) 729 d) 869
- 2) The cube root of 2744 is
a) 14 b) 18 c) 12 d) 16
- 3) Which of the following is a perfect cube?
a) 78 b) 81 c) 64 d) 49

II. FIND THE CUBE OF

- a) 15 b) 18 c) 25 d) 21

III. WRITE THE CUBES OF 5 NATURAL NUMBERS WHICH ARE MULTIPLES OF 7 AND VERIFY THE FOLLOWING 'The cube of a multiple of 7 is a multiple of 7^3 '

IV. WRITE TRUE OR FALSE FOR THE FOLLOWING

- a) 392 is a perfect cube
b) 8640 is not a perfect cube
c) No cube can end with exactly two zeros
d) There is no cube which ends in 4
e) For an integer a , a^3 is always greater than a^2
f) If a and b are integers such that $a^2 > b^2$, then $a^3 > b^3$
g) If a divides b then a^3 divides b^3
h) If a^2 ends in 9 then a^3 ends in 7

V. EVALUATE THE FOLLOWING

- a) $\{(24^2 + 7^2)^{1/2}\}^3$
b) $\{\sqrt{15^2 + 8^2}\}^3$

VI. SOLVE THE FOLLOWING

- a) $\sqrt[3]{\frac{0.027}{0.008}} \div \sqrt{\frac{0.09}{0.04}} - 1$
b) $\sqrt[3]{0.1 \times 0.1 \times 0.1 \times 13 \times 13 \times 13}$

VII. FIND THE CUBE ROOT OF 3048625 BY ESTIMATION METHOD

VIII. THREE NUMBERS ARE IN A RATIO 2:3:4. THE SUM OF THEIR CUBES IS 0.334125. FIND THE NUMBERS.

ANSWER KEY

- I. 1. 729 2. 14 3. 64
II. a) 3375 b) 5832 c) 15625 d) 9261

IV.

- a) false
- b) true
- c) true
- d) false
- e) false
- f) false
- g) true
- h) false

- V. a) 15625
b) 4913

VI.

- a) 0
- b) 1.3

VII. 135

VIII 0.3, 0.45, 0.6