PERL EDUCATION

DPP

DAILY PRACTICE PAPER

CUBES AND CUBE ROOTS

MATHEMATICS
CLASS-8TH
DPP-1

1) Find the cubes of the following

   a) 6a   b) -5

   c) $\frac{2}{7}$ d) $\frac{a^2}{3b}$

2) Find the last digit in the cube of the following numbers

   a) 32   b) 68   c) 35   d) 47

3) find the value of the following numbers by expressing as sum of consecutive odd numbers

   a) 5^3 b) 6^3 c) 9^3 d) 8^3

4) Without actual calculation find the value of the sum $1^3 + 2^3 + 3^3 + 4^3 + 5^3 + 6^3$

5) Without actual calculation find the number of non-perfect cube numbers between 27 and 64

6) Without actual calculation find the difference between 12^3 and 11^3

7) Check whether the number 750 is a perfect cube using successive subtraction. If not, find the least number to be subtracted from the number to get a perfect cube.

8) Check whether the number 55 is a perfect cube using successive subtraction . If not, find the least number to be added to 55 to get a perfect cube.

9) Check whether the number 1331 is a perfect cube using successive subtraction.

10) Check whether the following numbers are perfect cubes using prime factorization method. If not, find the least number by which the number should be multiplied to get a perfect cube. Also find the least number by which the number should be divided to get a perfect cube.

   a) 729   b) 4000   c) 5832   d) 1625

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**MATHEMATICS
CLASS-8TH
DPP-2**

1) Find the cube roots of the following cube numbers by guessing the units and tens digits.

    a) 4913   c) 205379

    b) 103823   d) 12267

2) Find the cube roots of the following numbers by prime factorization method

    a) 970299   c) 35937

    b) 592704   d) 1728

3) Find the cube roots of the following numbers using successive subtraction method.

    a) 343   c) 729

    b) 125   d) 64

4) Find the cube roots of the following numbers using successive subtraction method.

    a) $\dfrac{125}{1331}$ c) $91\dfrac{1}{8}$

    b) $12\dfrac{19}{27}$ d) $\dfrac{8}{343}$

5) Find the cube roots of the following expressions.

    a) $216x^3\, y^3$ c) $3\dfrac{3}{8}\; a^3b^3$

    b) $\dfrac{64x^9}{729y^3}$ d) $x^{12}y^6z^3$

6) Find the cube root of 46656 and hence find the value of the expression

$$\sqrt[3]{46656} + \sqrt[3]{46.656} + \sqrt[3]{0.046656}$$

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CUBES AND CUBE ROOTS

MATHEMATICS
CLASS-8TH
DPP-3

1. Select the appropriate answer for the following statements.
   (A) the cube of 2xyz is ....
   - a) $8x^3y^3z^3$
   - b) $8xyz$
   - c) $2x^3y^3z^3$
   - d) $4x^2y^2z^2$

   (B) The cube root of $64a^3$ is ....
   - a) 4
   - b) 4a
   - c) $4a^3$
   - d) 8a

   (C) The last digit of the cube of 128 is.............
   - a) 3
   - b) 7
   - c) 2
   - d) 9

   (D) If $\sqrt[3]{125} = 5$ then $\sqrt[3]{0.125} = $ --------------
   - a) 0.5
   - b) 5
   - c) 0.005
   - d) 15

   (E) The last digit of the cube root of 4913 is................
   - a) 3
   - b) 7
   - c) 9
   - d) 2

2. Match the following expressions in the first column to their respective sums.

a.	1 + 7 + 19	I	10^2
b.	31 + 33 + 35 + 37 + 39 + 41	II	3^3
c.	$1^3 + 2^3 + 3^3 + 4^3$	III	6^3
d.	$1^3 + 2^3 + 3^3$	IV	10
e.	1 + 2 + 3 + 4	V	6^2

3. Write the least number x such that the following numbers are perfect cubes
   - a) $864 - x$
   - b) $864 + x$
   - c) $864 \times x$
   - d) $864 \div x$

4. Find the cubes of the following numbers
   - a) 41
   - b) 2.5
   - c) $3ab^2$
   - d) $\div \frac{2}{3}$

5. Check if the following numbers are perfect cubes.
   - a) 1000
   - b) 3456
   - c) 50653
   - d) 1648

6. Find the cube roots of the following numbers.
   - a) 29791
   - b) 3375
   - c) 0.000512
   - d) $\frac{729}{1331}$