



ST. LAWRENCE HIGH SCHOOL



A JESUIT CHRISTIAN MINORITY INSTITUTION

CLASS 8

SUBJECT :Arithmetic

Work sheet 8 Answer key

Marks:15

Cubes and Cube roots

Date:8.2.21

Answer all the following questions(1×15=15)

- Which of the following is correct?
 - Cube of a negative number is always positive.
 - Cube of a negative number is always negative.
 - Cube of a negative number may be positive or negative.
 - All of the above
- If the digit in one's place of a number is 2, then the last digit of its cube will be:
 - 2
 - 4
 - 6
 - 8
- If the digit in one's place of a number is 3, then the last digit of its cube will be:
 - 3
 - 6
 - 7
 - 9
- If the digit in one's place of a number is 6, then the last digit of its cube will be:
 - 6
 - 3
 - 2
 - 8
- The volume of a cubical box is 64 cm^3 . Which of the following is its side?
 - 2 cm
 - 4 cm
 - 6 cm
 - 8 cm
- Which of the following is a perfect cube?
 - 10000
 - 243
 - 343
 - 270000

7. If a number is doubled then which of the following is a correct statement?
- I. Its cube is two times the cube of the given number.
 - II. Its cube is three times the cube of the given number.
 - III. Its cube is six times the cube of the given number.
 - IV. Its cube is eight times the cube of the given number.
8. Which of the following is equal to its own cube?
- I. -1
 - II. -2
 - III. -3
 - IV. -9
9. Which of the following is the cube root of 27000?
- I. 30
 - II. 300
 - III. 3000
 - IV. None of these
10. Which of the following is the cube root of $-\frac{64}{243}$?
- I. $\frac{7}{4}$
 - II. $-\frac{7}{4}$
 - III. $\frac{4}{7}$
 - IV. $-\frac{4}{7}$
11. The one's digit of the cube of 53 is:
- A. 9
 - B. 3
 - C. 7
 - D. 1
12. The prime factorisation of 64 is:
- A. $2 \times 2 \times 2$
 - B. $4 \times 4 \times 4$
 - C. $8 \times 8 \times 8$
 - D. None of the above
13. Which of the following is not a perfect cube?
- A. 216
 - B. 1000
 - C. 243
 - D. 1331
14. By what number should 81 be divided to get a perfect cube?
- A. 3
 - B. 6
 - C. 7
 - D. 9
15. By what number should we divide 135 to get a perfect cube?

- A. 3
- B. 5
- C. 7
- D. 9

ANSWERS

- 1. II
- 2. IV
- 3. III
- 4. I
- 5. II
- 6. III
- 7. IV
- 8. I
- 9. I
- 10. IV
- 11. Answer: **C**

Explanation: $53^3 = 53 \times 53 \times 53$

$$3^3 = 3 \times 3 \times 3 = 27$$

Hence, at the unit place, we will get 7.

Recheck: $53^3 = 53 \times 53 \times 53 = 148877$

12. **Answer: D**

Explanation: $64 = 2 \times 2 \times 2 \times 2 \times 2 \times 2 = 2^6$

13. Answer: **C**

Explanation: $243 = 3 \times 3 \times 3 \times 3 \times 3 = 3^3 \times 3^2$

14. Answer: **A**

Explanation: The prime factorisation of 81 will be:

$$81 = 3 \times 3 \times 3 \times 3$$

$$81 = 3^3 \times 3$$

Hence, we need to divide 81 by 3 to get:

$$81/3 = 27 = 3^3$$

15. Answer: **B**

Explanation: $135 = 3 \times 3 \times 3 \times 5$

We can see, 5 is the extra number which cannot be paired in a group of 3.

Hence, $135/5 = 27$

