Cube Root of Product of Integers

A. Choose the correct answer:

1. The cube root of 8 × 27 is.

a) 6	b) 12
c) 24	d) 9

2. Which property is used in finding cube root of a product.

a) $\sqrt[3]{a \times b} = \sqrt[3]{a} \times \sqrt[3]{b}$	b) $\sqrt[3]{a \times b} = \sqrt[3]{a + b}$
c) $\sqrt[3]{a \times b} = a \times b$	d) None of these
3. The cube root of 64 × 125 is.	
a) 40	b) 20
c) 25	d) 10
4. Cube root of −8 × 27 is.	
a) –6	b) 6
c) –12	d) 12

5. Cube root of product of integers can be found by.

a) Adding their cube roots.	b) Multiplying their cube roots.
c) Dividing their cube roots.	d) Subtracting their cube roots.

B. Write the Missing Terms to Complete the Sentences:

- 1. $\sqrt[3]{a \times b} = \sqrt[3]{a} \times _$.
- 3. The cube root of -64×-125 is equal to $\sqrt[3]{}$ _____.
- 4. $\sqrt[3]{64 \times 125} =$ _____.
- 5. The cube root of product of integers is same as the product of their _____ cube roots.

C. Figure out the answers to these questions:

- 1. Find the cube root of -343.
- 1. Find the cube root of 27×64 .
- 2. Find the cube root of -8×-27 .
- 3. Find the cube root of 125×216 .
- 4. Explain the method to find cube root of product of integers.
- 5. Find the cube root of $\frac{1}{8} \times 27$.

D. Mark each sentence with a True (🖌) or False (X):

- 1.Cube root of product is product of cube roots.
 - $2.\sqrt[3]{a \times b} = \sqrt[3]{a} + \sqrt[3]{b}.$
 - 3. Cube root of -8×27 is negative.
 - 4. Cube root of $\frac{1}{8} \times 27$ is $\frac{3}{2}$.
 - 5. Cube root of 100 × 125 is 50.

E. Challenge yourself with these questions:

- 1. Find the cube root of 8×125 .
- 2. Write the steps to find cube root of 64×27 .
- 3. Find the cube root of -27×-8 .
- 4. Is $\sqrt[3]{2 \times 3}$ equal to $\sqrt[3]{2} \times \sqrt[3]{3}$.
- 5. Find the cube root of $\frac{1}{27} \times 8$.