

### Multiple Choice Warm Up

1. A cube has a volume of  $5488\text{cm}^3$ . Determine the edge length of the cube as a radical in simplest form.

a)  $14\sqrt{2}$       b)  $14$       c)  $7^3\sqrt{2}$       d)  $14^3\sqrt{2}$

2. Evaluate  $\sqrt[4]{81}$

a)  $\sqrt[4]{3}$       b)  $\sqrt{3}$       c)  $3$       d)  $9$

3. Which of the following are equivalent to  $4\sqrt[3]{12}$

- a)  $\sqrt[3]{768}$     b)  $\sqrt{768}$     c)  $\sqrt[3]{192}$     d) 768

4. Write the equivalent form of 4 as a cube root.

- a) 12    b) 64    c)  $\sqrt[3]{64}$     d)  $\sqrt{64}$

5. Write  $4/9$  as a square root.

- a)  $\sqrt{2/3}$     b)  $\sqrt{4/9}$     c)  $\sqrt{16/81}$     e)  $2/3$

1. A cube has a volume of  $5488\text{cm}^3$ .  
Determine the edge length of the cube as  
a radical in simplest form.

a)  $14\sqrt{2}$       b) 14      c)  $7^3\sqrt{2}$       d)  $14^3\sqrt{2}$

$$\sqrt[3]{2 \times 2 \times 2 \times 2 \times 7 \times 7 \times 7}$$

$$= 2 \times 7 \sqrt{2}$$

$$= 14\sqrt{2}$$

2. Evaluate  $\sqrt[4]{81}$

a)  $\sqrt[4]{3}$

b)  $\sqrt{3}$

c) 3

d) 9

$$\sqrt[4]{3 \times 3 \times 3 \times 3} = 3$$

3. Which of the following are equivalent to  $4\sqrt[3]{12}$

- a)  $\sqrt[3]{768}$     b)  $\sqrt{768}$     c)  $\sqrt[3]{192}$     d) 768

$$\begin{aligned} & \textcircled{4}^3 \sqrt{12 \times 4 \times 4 \times 4} \\ & = \sqrt[3]{768} \end{aligned}$$

4. Write the equivalent form of 4 as a cube root.

- a) 12      b) 64      c)  $\sqrt[3]{64}$       d)  $\sqrt{64}$

$$4 = \sqrt[3]{64}$$

5. Write  $\frac{4}{9}$  as a square root.

a)  $\sqrt{\frac{2}{3}}$

b)  $\sqrt{\frac{4}{9}}$

c)  $\sqrt{\frac{16}{81}}$

e)  $\frac{2}{3}$

$$\frac{4}{9} = \sqrt{\frac{16}{81}}$$

