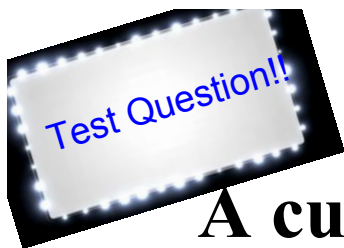


Warm Up Questions

1. Write the following in lowest terms $\sqrt{300}$
2. Write the following as an entire radical $3\sqrt{10}$
3. A cube has a **volume** of 875 cm^3 .
Write the edge length of the cube
as a radical in simplest form.
4. A cube has a **Surface Area** of 648 cm^2 . Write the edge length of the cube as a radical in simplest form.



A cube has a **volume** of 875 cm^3 .
Write the edge length of the cube
as a radical in simplest form.

$$\rightarrow \sqrt[3]{875}$$

$$V = l \times w \times h$$

$$= s \times s \times s$$

$$\sqrt[3]{s^3}$$

$$? = s$$

$$= \sqrt[3]{5 \times 5 \times 5 \times 7}$$

$$= 5\sqrt[3]{7}$$

Test Question

A cube has a **Surface Area** of 648 cm^2 . Write the edge length of the cube as a radical in simplest form.

$$\begin{aligned}
 & \text{SA} = 6(l \times w) \\
 & 648 = 6(s \times s) \\
 \longrightarrow & 648 / 6 = 108 \text{ cm}^2 \\
 & 108 = s^2 \\
 \longrightarrow & \sqrt{108} = \sqrt{2 \times 2 \times 3 \times 3 \times 3} \\
 & = \sqrt{(2 \times 2) \times (3 \times 3) \times 3} \\
 & = 2 \times 3 \sqrt{3} \\
 & = 6\sqrt{3}
 \end{aligned}$$