Warm Up Questions

1. Write the following as a mixed radical $\sqrt{300}$

$$\sqrt[2]{300} \qquad \sqrt{2 \times 2 \times 3 \times 5 \times 5}$$
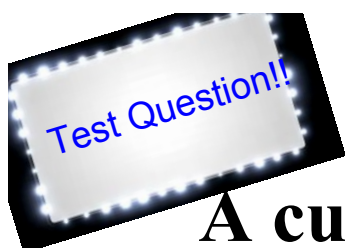
$$2 \times 5 \sqrt{3}$$
$$= 10\sqrt{3}$$

2. Write the following as an entire radical

$$-3\sqrt{10}$$

$$-\sqrt{10 \times 3 \times 3}$$

$$-\sqrt{90}$$

Test Question!!

A cube has a **volume** of 875 cm³. Write the edge length of the cube as a radical in simplest form.

$$\longrightarrow \quad \sqrt[3]{875}$$

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

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

Test Question

$6(l \times w)$

A cube has a Surface Area of 648 cm². Write the edge length of the cube as a radical in simplest form.

$\longrightarrow$ 648 /6 = 108 cm²

$\longrightarrow$ $\sqrt{108}$ = $\sqrt{2 \times 2 \times 3 \times 3 \times 3}$

$= \sqrt{2 \times 2 \times 3 \times 3 \times 3}$

$= 2 \times 3 \sqrt{3}$

$= 6\sqrt{3}$