

September 13<sup>th</sup>

A cube has surface area of  $y \text{ cm}^2$

The volume of the same cube is  $y \text{ cm}^3$

**What are the dimensions of the cube?**

If the side length of the cube is  $x \text{ cm}$

$$\text{Volume} = x^3$$

$$\text{Surface area} = 6x^2$$

$$\text{Hence } 6x^2 = x^3$$

Therefore the cube is **6cm x 6cm x 6cm**

**(and  $y=216$ )**