Warm Up Questions

1. **A cube has a surface area of 3456 cm^2**
   What is the volume?

2. **The volume of a cube is 250047 cm^3**
   What is the surface area?

1. A cube has a surface area of 3456 cm^2
What is the volume?

3456 ⟶ work backwards **SA = 6(l x w)**

3456 / 6 = 576

SA = ~~6~~(l x w)
same

$\sqrt{576}$ = 2 x 2 x 2 x 2 x 2 x 2 x 3 x 3

2 x 2 x 2 x 3 = 24

SA = 6(l x w)
= 6(24 x 24)

Volume = l x w x h
= 24 x 24 x 24
= 13824 cm^3

2. The volume of a cube is 250047 cm
What is the surface area?

250047
v = l x w x h

63x63x63

250047 = 3 x 3 x 3 x 3 x 3 x 3 x 7 x 7 x 7

= 3 x 3 x 7

= 63

SA = 6 (l x w)

= 6 (63 x 63)

= 23814 cm²