

Are You Ready? Possible Solutions

1. From the Explore section:

Area is the amount of square units occupying an enclosed shape or two-dimensional space. To find the area of a shape, you need to multiply two dimensions of the shape together. For example,

$$1\text{ cm} \times 1\text{ cm} = 1\text{ cm}^2$$

On the other hand, volume measures the amount of cubic units occupying a *three*-dimensional space. To find the volume of an object, you need to multiply three dimensions of the object together. For example,

$$1\text{ cm} \times 1\text{ cm} \times 1\text{ cm} = 1\text{ cm}^3$$

2. $V = \ell wh$

3. $V = 5\text{ cm} \times 5\text{ cm} \times 5\text{ cm} = 125\text{ cm}^3$

4. $V = \ell wh$

$$V = 14\text{ m} \times 3\text{ m} \times 2\text{ m}$$

$$V = 84\text{ m}^3$$

5. You could submerge the object in a container filled to the brim with water. The volume of water displaced, in mL, is equal to the same number of cubic centimetres.