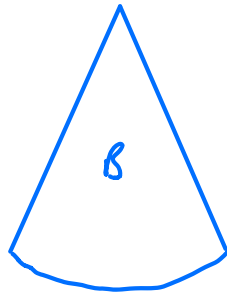
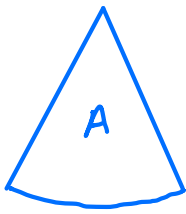


## Similar Figures



A and B are mathematically similar

The volume of A =  $1000 \text{ cm}^3$

The volume of B =  $8000 \text{ cm}^3$

- a) If the height of A =  $15 \text{ cm}$  find height of B
- b) If surface area of B =  $200 \text{ cm}^2$  find surface area of A

	A : B	
Vol	1000 : 8000	= 1 : 8
Length	$\sqrt[3]{1000} : \sqrt[3]{8000}$	= 10 : 20 = 1 : 2
Area	$1^2 : 2^2$	= 1 : 4

a) Height of B = Height of A  $\times \frac{2}{1}$   
 $15 \times 2 = 30 \text{ cm}$

b) Surface Area A = Surface Area B  $\times \frac{1}{4}$   
 $= 200 \times \frac{1}{4} = 50 \text{ cm}^2$

5)

Small : Large

Length 1 : 3

Area  $1^2 : 3^2 = 1 : 9$ 

$$\text{Large area} = \text{small area} \times \frac{9}{1}$$

$$= 15 \times 9$$

$$= 135 \text{ cm}^2$$


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6)

small : large

Length 1 : 2

a)

Area  $1^2 : 2^2 = 1 : 4$ 

$$\text{large area} = \text{small area} \times \frac{4}{1}$$

$$= 14 \times 4$$

$$= 56 \text{ cm}^2$$


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b)

Small : large

Len 1 : 3

Area  $1^2 : 3^2 = 1 : 9$ 

$$\text{large area} = \text{small area} \times \frac{9}{1}$$

$$= 14 \times 9$$

$$= 126 \text{ cm}^2$$


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