

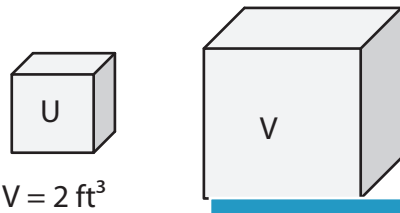
Name : \_\_\_\_\_

## Scale Factors - Volumes

L153

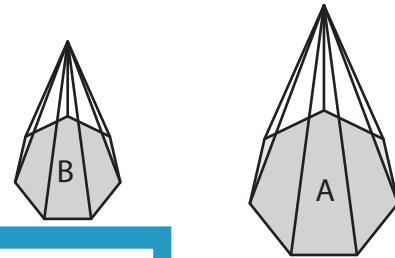
Each pair of figures is similar. Find the missing volume. (V denotes Volume)

1) Scale factor of U to V is 1 : 3



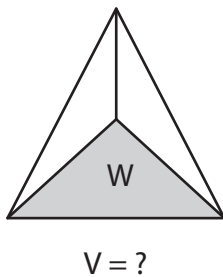
Volume of figure V

2) Scale factor of A to B is 4.3 : 2.6



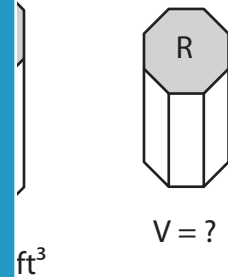
Volume of figure B = \_\_\_\_\_

3) Scale factor of X to Y is 3 : 2



Volume of figure Y

Scale factor of S to R is 9 : 4



Volume of figure S = \_\_\_\_\_

5) The scale factor of the larger polygon to the smaller polygon is 5 : 3. If the volume of the larger polygon is 31.25 cubic inches, find the volume of the smaller polygon.

\_\_\_\_\_

6) K and L are similar heptagonal prisms. The scale factor of K to L is 8 : 3.5. If the volume of K is 102.4 cubic yards, find the volume of L.

\_\_\_\_\_

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Name : \_\_\_\_\_

## Answer key

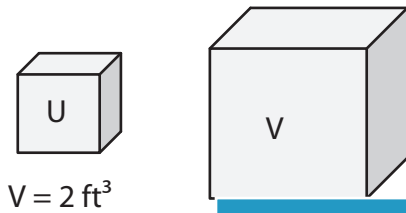
### Scale Factors - Volumes

L153

Each pair of figures is similar. Find the missing volume. (V denotes Volume)

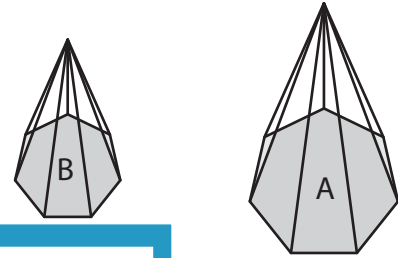
1) Scale factor of U to V is 1 : 3

2) Scale factor of A to B is 4.3 : 2.6



$V = 2 \text{ ft}^3$

Volume of figure V

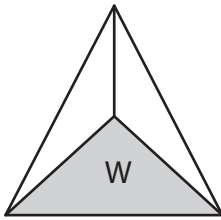


$V = 79.507 \text{ in}^3$

Volume of figure B = 17.576 in<sup>3</sup>

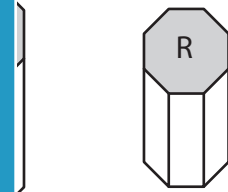
3) Scale factor of X to Y is 3 : 2

Scale factor of S to R is 9 : 4



$V = ?$

Volume of figure W



$V = ?$

Volume of figure S = 16 ft<sup>3</sup>

5) The scale factor of the smaller polygon is 3.5 : 2.5. The volume of the larger polygon is 31.25 cubic inches, find the volume of the smaller polygon.

The volume of the smaller polygon is \_\_\_\_\_

686 cubic inches

6) K and L are similar heptagonal prisms. The scale factor of K to L is 8 : 3.5. If the volume of K is 102.4 cubic yards, find the volume of L.

8.575 cubic yards

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