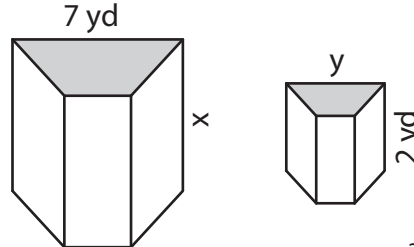


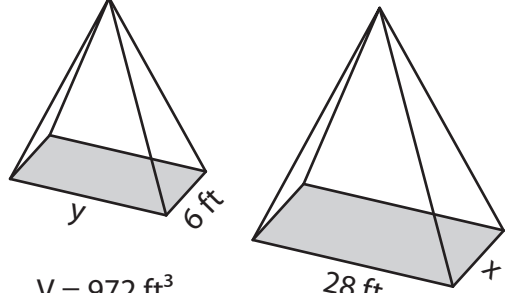
Name : _____

Scale Factor - Finding Sides

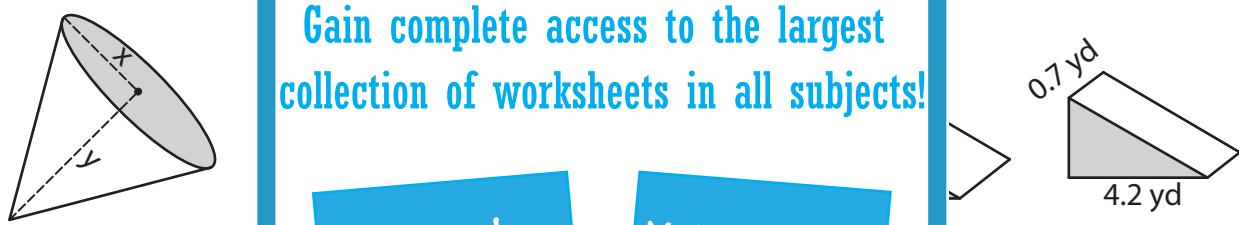
Sheet 1

Each pair of figures is similar. Find x and y (SA denotes Surface Area and V denotes Volume).

1)  $SA = 842.8 \text{ yd}^2$; $SA = 17.2 \text{ yd}^2$

2)  $V = 972 \text{ ft}^3$; $V = 2,304 \text{ ft}^3$

$x = \underline{\hspace{2cm}}$; $y = \underline{\hspace{2cm}}$

3)  $V = 500\pi \text{ in}^3$; $SA = 8.82 \text{ yd}^2$

$x = \underline{\hspace{2cm}}$; $y = \underline{\hspace{2cm}}$

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5) The volumes of two similar rectangular prisms are 2,147.466 cubic inches and 7.1 cubic inches. Find the height and width of the larger prism are

6) E and F are similar cylinders with surface areas 192π square feet and $3,888\pi$ square feet respectively. If the radius and height of F measures 27 feet and 45 feet, find the radius and height of E.

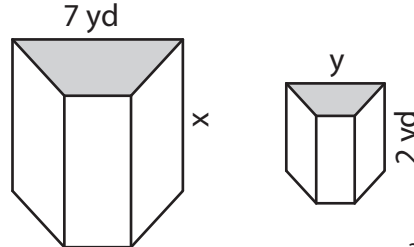
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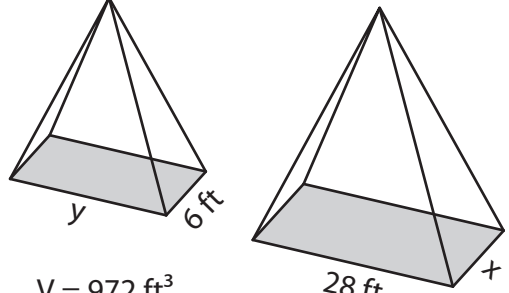
Answer key

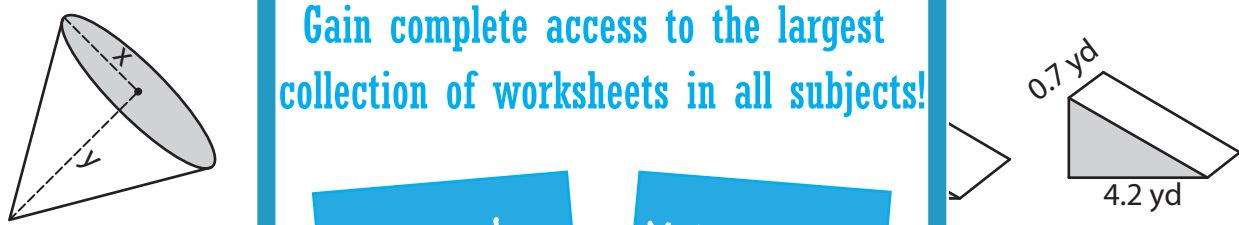
Scale Factor - Finding Sides

Sheet 1

Each pair of figures is similar. Find x and y (SA denotes Surface Area and V denotes Volume).

1)  $SA = 842.8 \text{ yd}^2$; $x = \underline{14 \text{ yd}}$;

2)  $V = 972 \text{ ft}^3$; $y = \underline{21 \text{ ft}}$;

3)  $V = 500\pi \text{ in}^3$; $x = \underline{10 \text{ in}}$;

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$SA = 8.82 \text{ yd}^2$; $y = \underline{4 \text{ yd}}$;

5) The volumes of two similar rectangular prisms are 2,147.466 cubic inches and 7.1 cubic inches. Find the height and length of the smaller prism are 18 inches and 6 inches respectively.

The height and length of the smaller prism are 18 inches and 6 inches respectively.

6) E and F are similar cylinders with surface areas 192π square feet and $3,888\pi$ square feet respectively. If the radius and height of F measures 27 feet and 45 feet, find the radius and height of E.

The radius and height of cylinder E measures 6 feet and 10 feet.