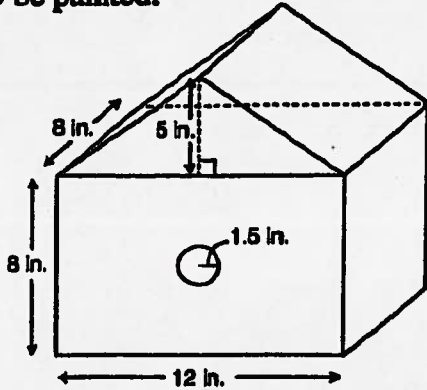


Solve Problems Involving Surface Area and Volume

Date: _____

Section 9.5

1. All sides, including the bottom, of the birdhouse shown below are to be painted.



What is the total surface area that will be painted?

$$\text{Area of back} = \underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$$

$$= \underline{\hspace{2cm}}$$

$$\text{Area of front} = \underline{\hspace{2cm}} \times \underline{\hspace{2cm}} - \underline{\hspace{2cm}}$$

$$= \underline{\hspace{2cm}}$$

$$\text{Area of 2 sides} = \underline{\hspace{2cm}} \times \underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$$

$$= \underline{\hspace{2cm}}$$

$$\text{Area of base} = \underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$$

$$= \underline{\hspace{2cm}}$$

$$\text{Area of front and back triangles} = \underline{\hspace{2cm}} \times \underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$$

$$= \underline{\hspace{2cm}}$$

$$\text{Area of roof} = \underline{\hspace{2cm}} \times \underline{\hspace{2cm}}$$

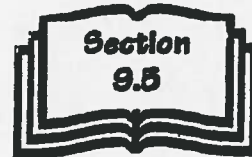
$$= \underline{\hspace{2cm}}$$

$$\text{Total surface area to be painted} = \underline{\hspace{2cm}}$$

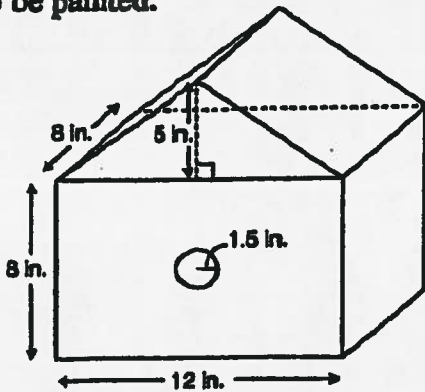
9.5

Solve Problems Involving Surface Area and Volume

Date: _____



1. All sides, including the bottom, of the birdhouse shown below are to be painted.



What is the total surface area that will be painted?

Area of back = $\frac{12}{96} \times 8$

Area of front = $\frac{12}{88.9} \times 8 - \pi(1.5)^2$

Area of 2 sides = $\frac{2}{128} \times 8 \times 8$

Area of base = $\frac{12}{96} \times 8$

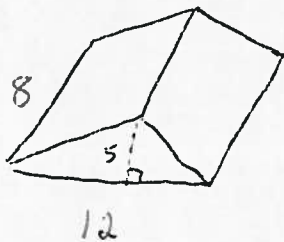
Area of front and back triangles = $\frac{1}{2} \times 12 \times 5 = 30$

Area of roof = $\frac{2}{8} \times 8 \times 7.8$

$\frac{b \times h}{2} = \frac{12 \times 5}{2} = \frac{60}{2} = 30$

Total surface area to be painted = 453.7 in^2

πr^2 - Area of Circle



$a^2 + b^2 = c^2$
 $6^2 + 5^2 = c^2$
 $36 + 25 = c^2$
 $61 = c^2$
 $7.8 = c$

