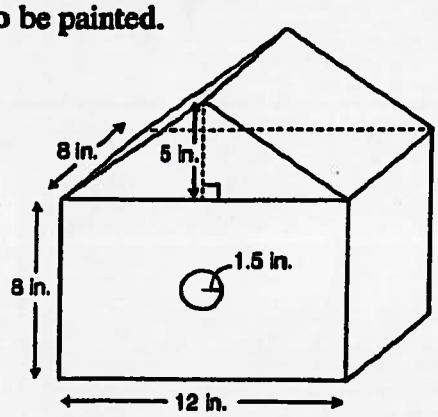
9.5 Solve Problems Involving Surface Area and Volume

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?

Area of back = _____ × _____

= _____

Area of front = _____ × _____ − _____

= _____

Area of 2 sides = _____ × _____ × _____

= _____

Area of base = _____ × _____

= _____

Area of front and back triangles = _____ × _____ × _____

= _____

Area of roof = _____ × _____

= _____

Total surface area to be painted = _____

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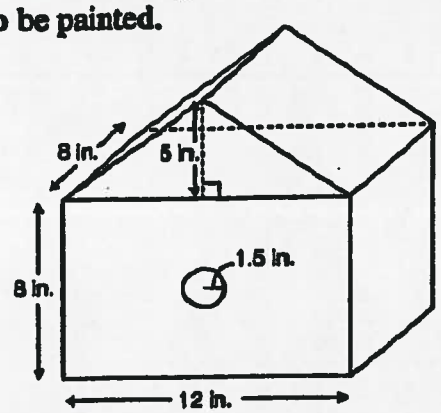
Date: _____

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?

Area of back = 12 × 8
= 96

Area of front = 12 × 8 − $\pi(1.5)^2$
= 88.9

Area of 2 sides = 2 × 8 × 8
= 128

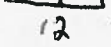
Area of base = 12 × 8
= 96

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

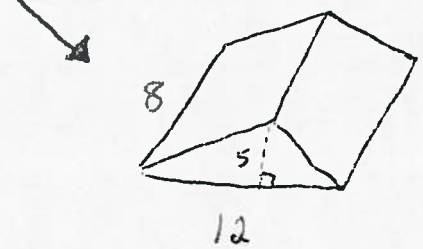
Area of roof = 2 × 8 × 7.8
= _____

Total surface area to be painted = 453.7 in^2

πr^2 – Area of Circle



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



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

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