

Name: Wilkins

Date: _____

Period: _____

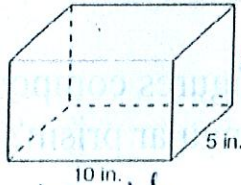
Surface Area

Rectangular & Triangular Prisms

Surface Area: area of all the faces (surfaces)

Example: wrapping paper; cardboard boxes

Example 1)



height
width

There are 2 methods to calculate the surface area of a rectangular prism

10 in.
length
Method 1

Use the formula

$$S.A. = 2B + Ph$$

area of the base
perimeter of the base

height of the prism

Method 2

C3 trick!

$$L = 10$$

$$W = 5$$

$$H = 6$$

$$2(lw) + (2(l+w))h$$

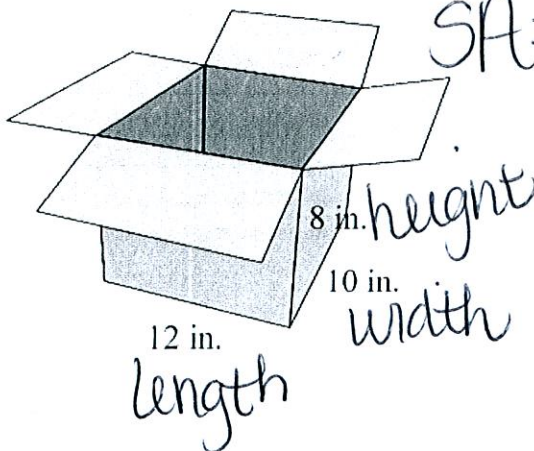
$$2(10 \cdot 5) + (2(15))6$$

$$100 + 180 = 280 \text{ in}^2$$

$$60 + 50 + 30$$

$$140(2) = 280 \text{ in}^2$$

Example 2) Find the surface area of the box below, not including the open lid.



12 in.
length

8 in. height
10 in. width

$$SA = 2B + Ph$$

$$= B + Ph$$

$$= lw + (2l + 2w)h$$

$$= (12 \cdot 10) + (2 \cdot 12 + 2 \cdot 10)8$$

$$= 120 + 44(8)$$

$$= 472 \text{ in}^2$$