

Surface Area of Prisms 8.2 Part 1

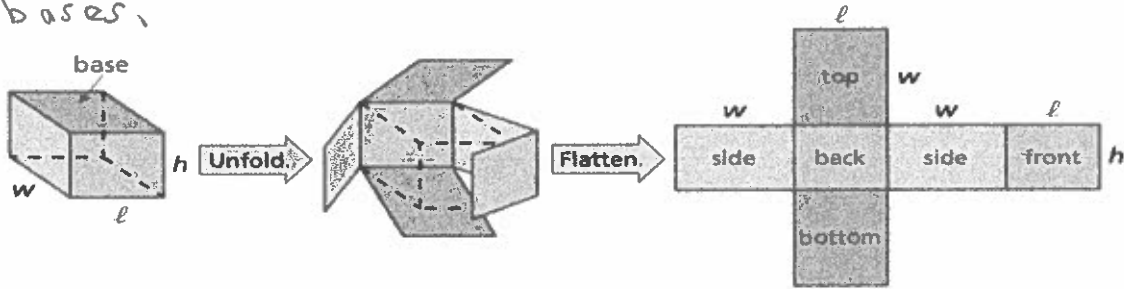
Essential Question: How can you find the area of the entire surface of a prism?

The surface area of a solid is the sum of the areas of all its faces.

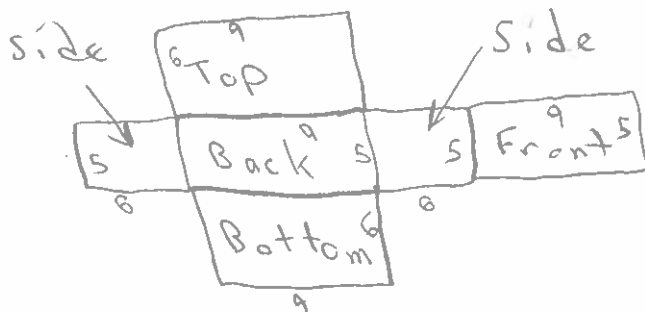
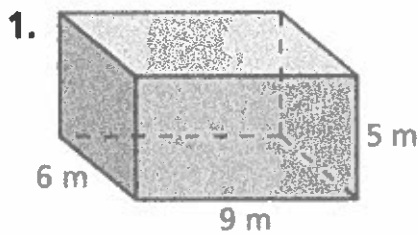
You can use a two-dimensional representation of a solid called a net to find the surface area of a solid. Surface area is measured in square units.

Net of a Rectangular Prism

A rectangular prism is a prism with rectangular bases.

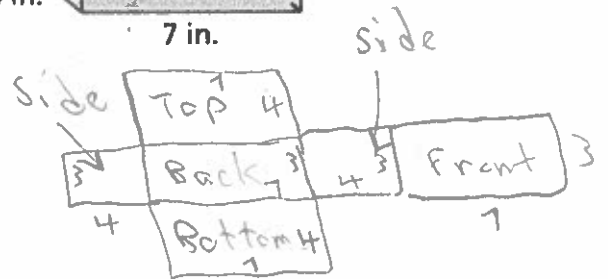
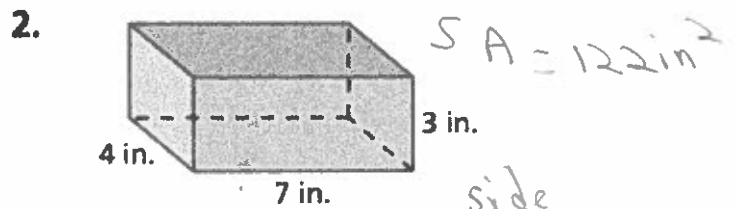


Find the surface area of the Rectangular Prism.



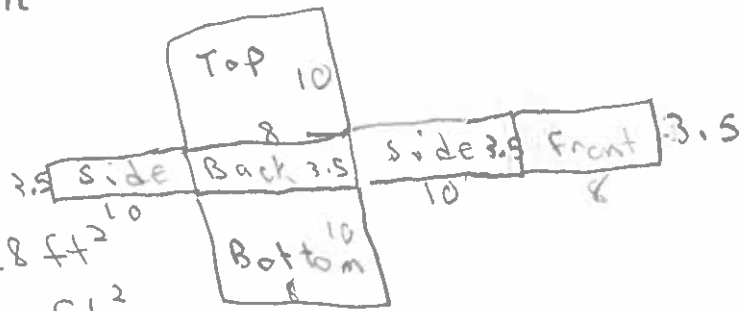
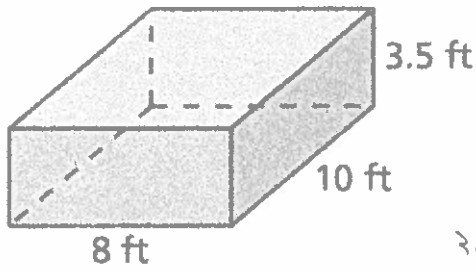
$$SA = 258 \text{ m}^2$$

$Top = 9 \cdot 6 = 54 \text{ m}^2$
 $Back = 9 \cdot 5 = 45 \text{ m}^2$
 $Side = 5 \cdot 6 = 30 \text{ m}^2$
 $Side = 5 \cdot 6 = 30 \text{ m}^2$
 $Bottom = 9 \cdot 6 = 54 \text{ m}^2$
 $Front = 9 \cdot 5 = 45 \text{ m}^2$



$$SA = 122 \text{ in}^2$$

$Top = 7 \cdot 4 = 28 \text{ in}^2$
 $Back = 7 \cdot 3 = 21 \text{ in}^2$
 $side = 3 \cdot 4 = 12 \text{ in}^2$
 $side = 3 \cdot 4 = 12 \text{ in}^2$
 $Bottom = 7 \cdot 4 = 28 \text{ in}^2$
 $Front = 7 \cdot 3 = 21 \text{ in}^2$



$$\text{Back} = 3.5(8) = 28 \text{ ft}^2$$

$$\text{Top} = 8(10) = 80 \text{ ft}^2$$

$$\text{Bottom} = 8(10) = 80 \text{ ft}^2$$

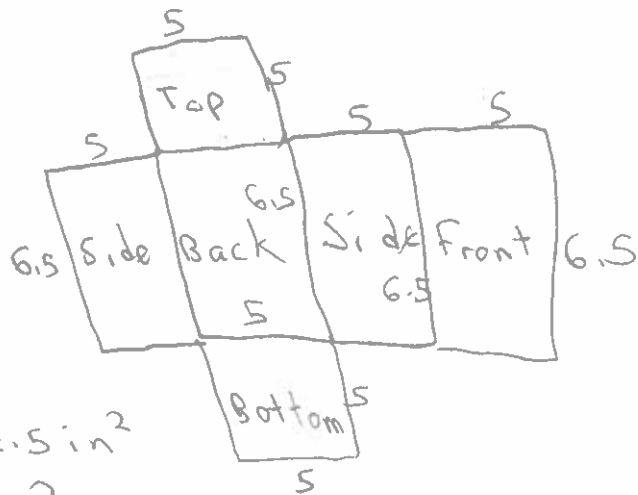
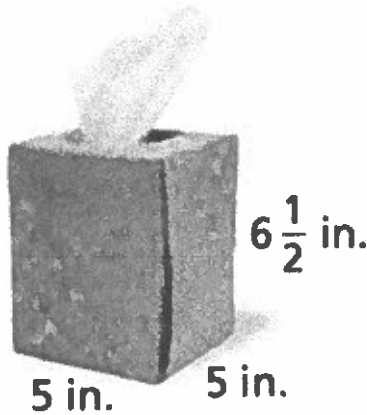
$$\text{Side} = 3.5(10) = 35 \text{ ft}^2$$

$$\text{Side} = 3.5(10) = 35 \text{ ft}^2$$

$$\text{Front} = 8(3.5) = 28 \text{ ft}^2$$

$$SA = 286 \text{ ft}^2$$

4.



$$\text{Back} = 6.5(5) = 32.5 \text{ in}^2$$

$$\text{Top} = 5(5) = 25 \text{ in}^2$$

$$\text{Bottom} = 5(5) = 25 \text{ in}^2$$

$$\text{Side} = (6.5)5 = 32.5 \text{ in}^2$$

$$\text{Side} = 6.5(5) = 32.5 \text{ in}^2$$

$$\text{Front} = 6.5(5) = 32.5 \text{ in}^2$$

$$SA = 180 \text{ in}^2$$