9.1 Surface Area of Prisms

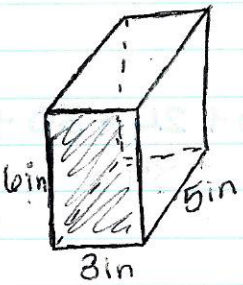
EQ: How can you find the surface area of prisms?

Surface Area of prisms: the sum of the areas of the faces.
Base: the main shape → 2 of these
Lateral Faces: the sides of the figure, not including the bases

Formula: SA. = sum of the areas of the faces
OR
= area of bases + area of lateral faces

Example 1: Rectangular Prism

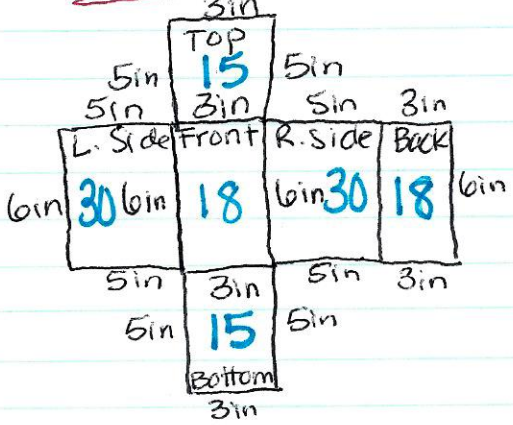
$SA. = 2lw + 2lh + 2wh$



List Method

Front:	6x3	=	$18\ in^2$
Back:	6x3	=	$18\ in^2$
Top:	5x3	=	$15\ in^2$
Bottom:	5x3	=	$15\ in^2$
R. Side:	6x5	=	$30\ in^2$
L. Side:	6x5	=	$30\ in^2$
		+	$126\ in^2$

Net Method

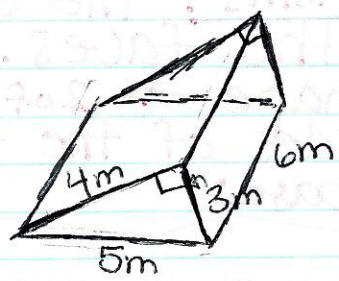


$15 + 30 + 18 + 30 + 18 + 15$

$= 126 in^2$

square units

Example 2: Triangular Prism



List Method

Front: $\frac{3 \times 4}{2} = \frac{12}{2} = 6m^2$

Back: $\frac{3 \times 4}{2} = \frac{12}{2} = 6m^2$

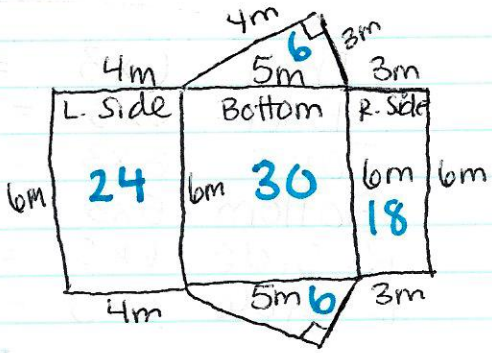
Bottom: $5 \times 6 = 30m^2$

R. Side: $3 \times 6 = 18m^2$

L. Side: $4 \times 6 = 24m^2$

$84m^2$

Net Method



$6+6+24+30+18$

$= 84\ m^2$