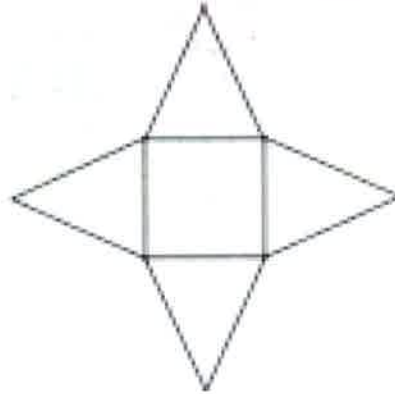
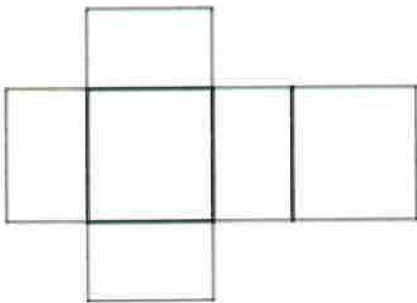
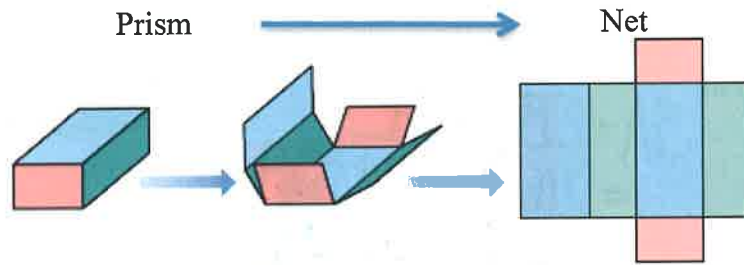


**Nets and Solids**

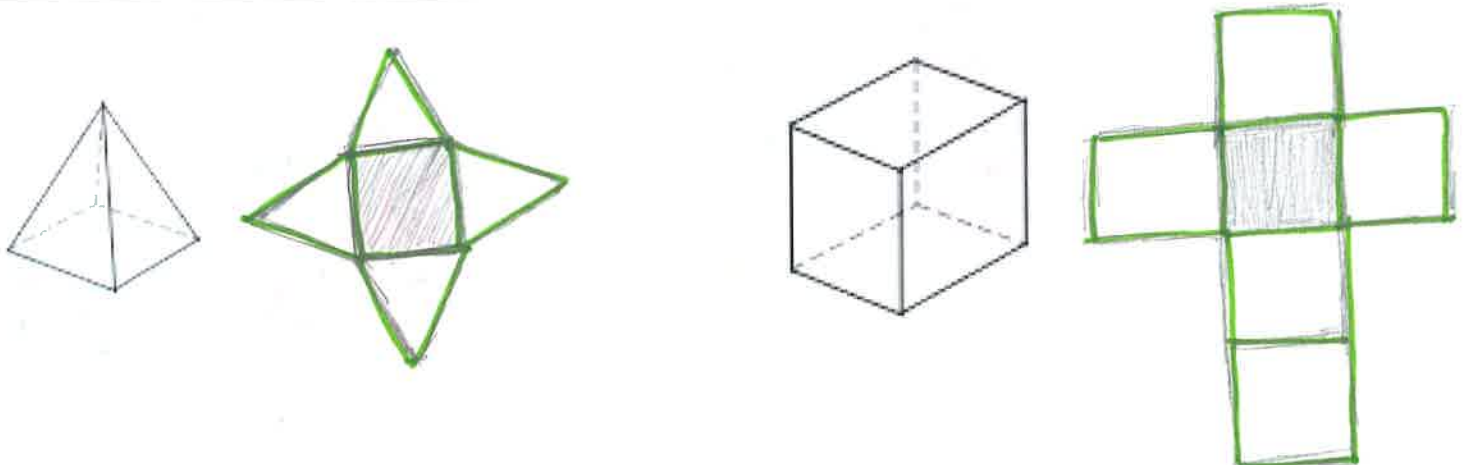
Net: A two dimensional representation of a solid.

Base: The side that a shape sits on. There are 2 bases in prisms + cylinders

Lateral Face: The faces that are not bases. There is 1 base in pyramids + cones.



**Drawing Nets**

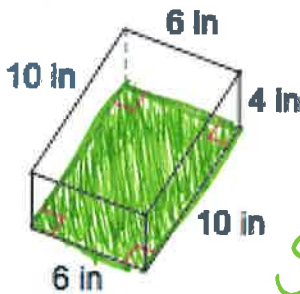


# Surface Area

## Prisms: $SA = 2B + Ph$

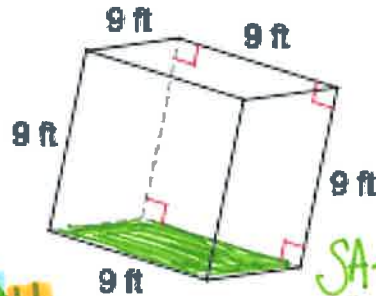
Find the surface area:

1)



$$\begin{aligned}
 SA &= 2B + Ph \\
 &= 2(bh) + (2bt + 2th)H \\
 &= 2(6 \cdot 10) + (2 \cdot 6 + 2 \cdot 10)4 \\
 &= 2(60) + (12 + 20)4 \\
 &= 120 + (32)4 \\
 &= 120 + 128 \\
 &= 248 \text{ in}^2
 \end{aligned}$$

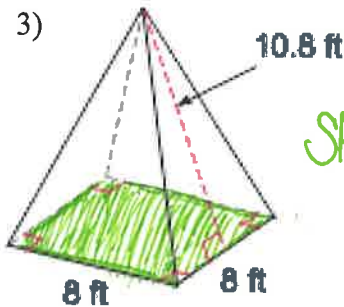
2)



$$\begin{aligned}
 SA &= 2B + Ph \\
 &= 2(b \cdot h) + (2bt + 2th)H \\
 &= 2(9 \cdot 9) + (4 \cdot 9)9 \\
 &= 2(81) + (36)9 \\
 &= 162 + 324 \\
 &= 486 \text{ ft}^2
 \end{aligned}$$

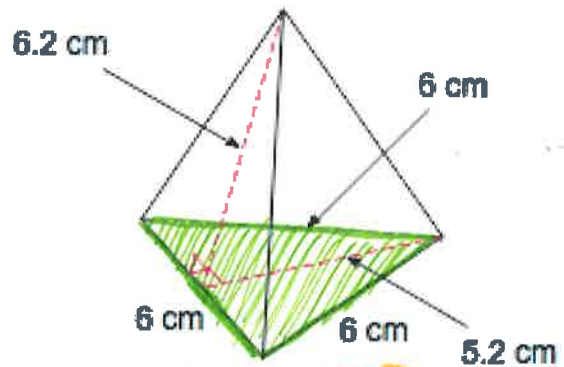
## Pyramids: $SA = B + \frac{1}{2}Pl$

3)



$$\begin{aligned}
 SA &= B + \frac{1}{2}Pl \\
 &= (b \cdot h) + \frac{1}{2}(4s)l \\
 &= (8 \cdot 8) + \frac{1}{2}(4(8))10.8 \\
 &= 64 + \frac{1}{2}(32)10.8 \\
 &= 64 + 172.8 \\
 &= 236.8 \text{ ft}^2
 \end{aligned}$$

4)



$$\begin{aligned}
 SA &= B + \frac{1}{2}Pl \\
 &= (\frac{1}{2}bh) + \frac{1}{2}(s_1 + s_2 + s_3)l \\
 &= (\frac{1}{2}(6)(5.2)) + \frac{1}{2}(6 + 6 + 6)(6.2) \\
 &= 15.6 + \frac{1}{2}(18)(6.2) \\
 &= 15.6 + 55.8 \\
 &= 71.4 \text{ cm}^2
 \end{aligned}$$