Surface Area of Prisms & Pyramids
Using Nets

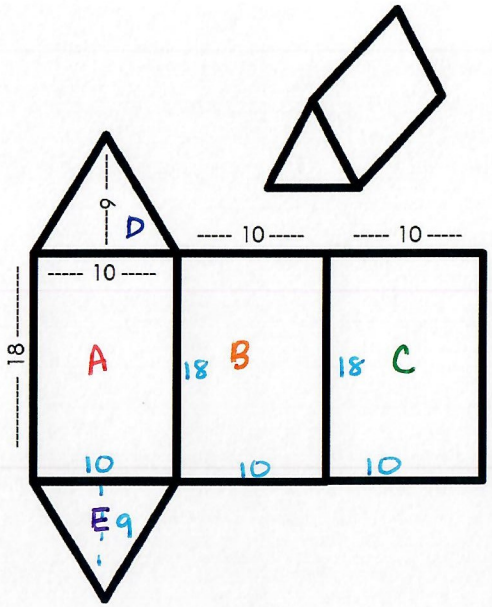
SURFACE AREA is the sum of the areas of all the faces that enclose a solid figure. It is the amount of material needed to wrap around the ***outside***.

STEPS
1. Write the Missing dimensions for each length of the net.
2. Find the area of each face.
3. Add the areas together to find the surface area of the entire shape.

Remember...

The formula for the AREA of a parallelogram is:
$A = bh$

The formula for the AREA of a triangle is:
$A = \frac{bh}{2}$ or $A = \frac{1}{2}bh$



My Work

A_A: $bh = 10 \cdot 18 = 180 \text{ units}^2$

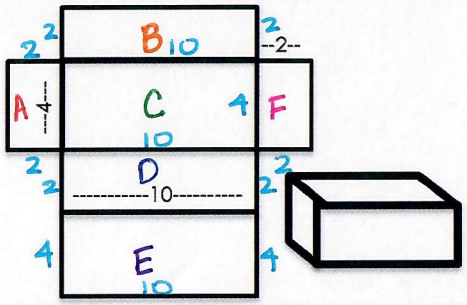
A_B: $bh = 10 \cdot 18 = 180 \text{ units}^2$

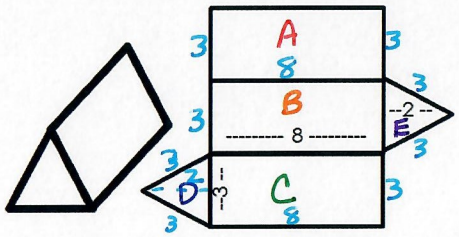
A_C: $bh = 10 \cdot 18 = 180 \text{ units}^2$

A_D: $\frac{1}{2}bh = \frac{1}{2}(10)(9) = 45 \text{ units}^2$

A_E: $\frac{1}{2}bh = \frac{1}{2}(10)(9) = 45 \text{ units}^2$ SAME AS D! BASES ARE THE SAME!

Total Area:
$A_T = 180+180+180+45+45 = 630 \text{ units}^2$





My Work

A_A: $bh = 2 \cdot 4 = 8 \text{ units}^2$

A_B: $bh = 10 \cdot 2 = 20 \text{ units}^2$

A_C: $bh = 10 \cdot 4 = 40 \text{ units}^2$

A_D: $bh = 10 \cdot 2 = 20 \text{ units}^2$ SAME AS B!

A_E: $bh = 10 \cdot 4 = 40 \text{ units}^2$ SAME AS C!

A_F: $bh = 2 \cdot 4 = 8 \text{ units}^2$ SAME AS A!

Total Area:
$A_T = 8+20+40+20+40+8 = 136 \text{ units}^2$

My Work

A_A: $bh = 8 \cdot 3 = 24 \text{ units}^2$

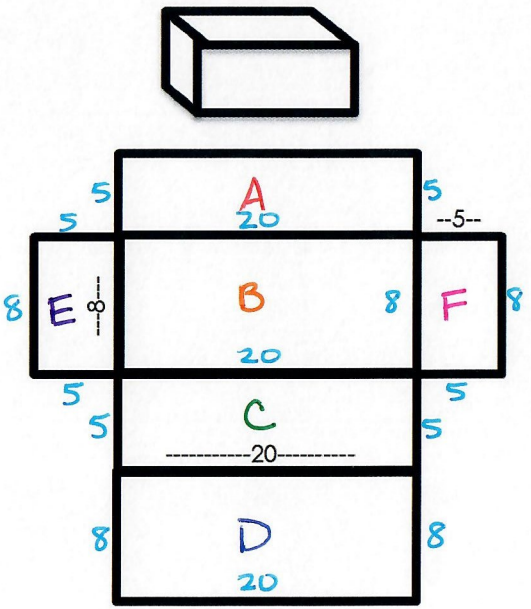
A_B: $bh = 8 \cdot 3 = 24 \text{ units}^2$

A_C: $bh = 8 \cdot 3 = 24 \text{ units}^2$

A_D: $\frac{1}{2}bh = \frac{1}{2}(3)(2) = 3 \text{ units}^2$

A_E: $\frac{1}{2}bh = \frac{1}{2}(3)(2) = 3 \text{ units}^2$ SAME AS D! BASES ARE THE SAME!

Total Area:
$A_T = 24+24+24+3+3 = 78 \text{ units}^2$



My Work

A_A: $bh = 20(5) = 100 \text{ units}^2$

A_B: $bh = 20(8) = 160 \text{ units}^2$

A_C: $bh = 20 \cdot 5 = 100 \text{ units}^2$

A_D: $bh = 20 \cdot 8 = 160 \text{ units}^2$

A_E: $bh = 5 \cdot 8 = 40 \text{ units}^2$

A_F: $bh = 5 \cdot 8 = 40 \text{ units}^2$

Total Area:
$A_T = 100+160+100+160+40+40 = 600 \text{ units}^2$