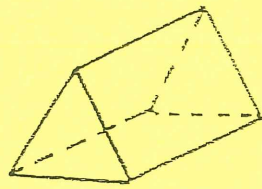
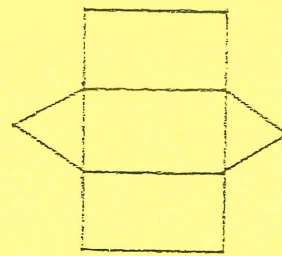


## Triangular Prisms



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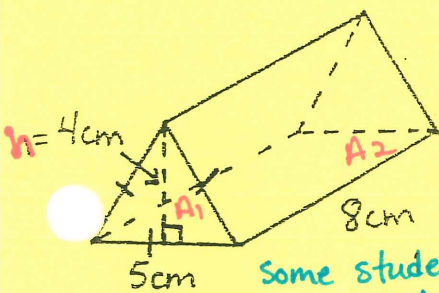
- Have 5 faces
  - 2 congruent (identical) triangular faces
  - 3 rectangular faces

- Therefore, you will need the following formulas:

$$A_{\Delta} = \frac{bh}{2} \quad \text{AND} \quad A_{\square} = lw$$

- The number of calculations will depend on the type of triangle

### Scenario 1: Equilateral triangle (all sides equal)



$$\begin{aligned} A_1 &= \frac{bh}{2} \\ &= \frac{5(4)}{2} \\ &= \frac{20}{2} \\ &= 10 \text{ cm}^2 \\ &\quad \times 2 \\ \hline &= 20 \text{ cm}^2 \end{aligned}$$

$$\begin{aligned} A_2 &= lw \\ &= 8(5) \\ &= 40 \text{ cm}^2 \\ &\quad \times 3 \\ \hline &= 120 \text{ cm}^2 \end{aligned}$$

All 3 rectangles are the same because all 3 sides of the triangle are.

$$\begin{aligned} \text{S.A.} &= 20 + 120 \\ &= \boxed{140 \text{ cm}^2} \end{aligned}$$

Some students omit dividing by 2 because you multiply by 2 and undo it. Others find that confusing and do it as shown

### Scenario 2: Isosceles triangle (2 sides are equal)

