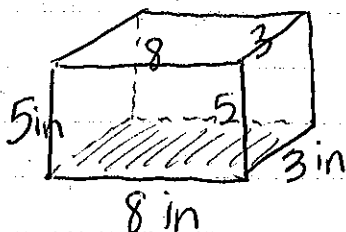


Day 81

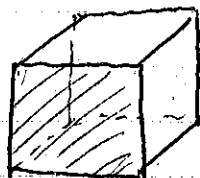
11.2 Surface Area of Prisms and Cylinders

①



$$\begin{aligned} & 2 \cdot 5 \cdot 8 + 2 \cdot 3 \cdot 5 + 2 \cdot 8 \cdot 3 \\ & \left(\begin{array}{l} \text{lateral} \\ \text{area} \end{array} \right) \quad \text{Bases} \\ & 80 + 30 + 48 \\ & S.A. = \boxed{158} \text{ in}^2 \end{aligned}$$

②



$$s = 11 \text{ m}$$

$$6 \cdot s \cdot s = 6s^2$$

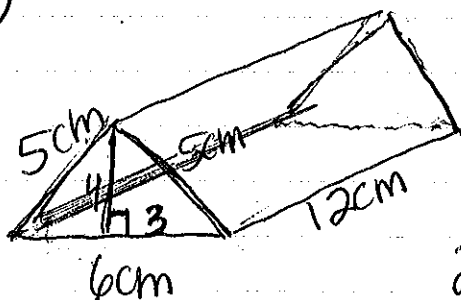
$$S.A. \text{ cube} = 6s^2$$

Hexahedron (one of 5 platonic solids)

$$\begin{aligned} S.A. &= 6 \cdot 11^2 \\ &= 6 \cdot 121 \end{aligned}$$

$$S.A. = 726 \text{ m}^2$$

③

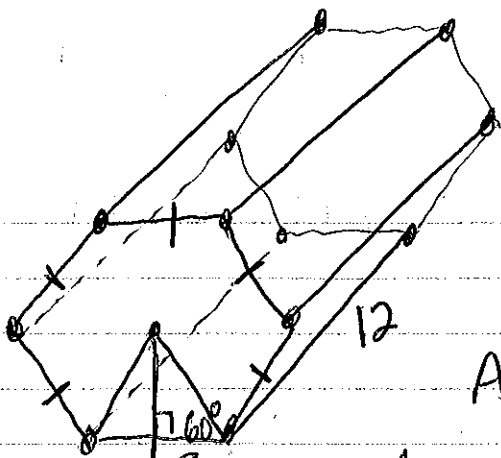


Triangular Prism

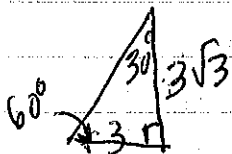
2 \cdot \text{area base } \Delta + \text{ area rectangles}

$$\begin{aligned} & 2 \cdot \left(\frac{1}{2} \cdot 6 \cdot 4 \right) + 5 \cdot 12 + 5 \cdot 12 + 6 \cdot 12 \\ & 24 + 60 + 60 + 72 \\ & = 216 \text{ cm}^2 \end{aligned}$$

4



$$P = 6 + 6$$



Lateral Area
(rectangles) = $6(6 \cdot 12)$

$$L.A. = 432$$

$$\text{Area Bases} = 2 \cdot \frac{1}{2} aP$$

$$= 3\sqrt{3}(36)$$

$$\text{Bases} = 108\sqrt{3}$$

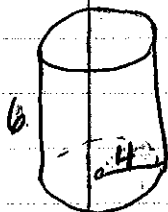
$$S.A. = L.A. + \text{area bases}$$

$$S.A. = 432 + 108\sqrt{3} \quad \text{radical answer}$$

$$\text{Whole \#} \approx 619 \text{ units}^2$$

5

radius of base cylinder is 4 in and height is 6 in. Find the S.A. in terms of π .



$$2\pi 4^2 + 2\pi 4 \cdot 6$$

$$2\pi r^2 + 2\pi r \cdot h$$

$$32\pi + 48\pi$$

$$S.A. = 80\pi \text{ in}^2$$

6

diameter is 9 cm, height is 15 cm. Find the S.A. (π form + nearest tenth.)
 $r = 4.5$