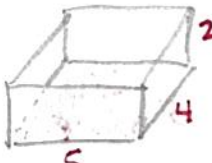
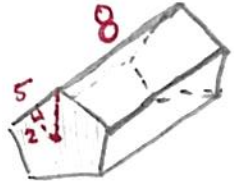


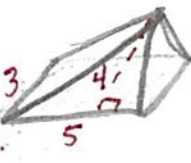
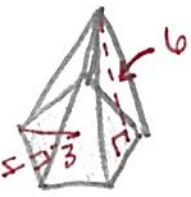
# 4.6 Surface Area of Prisms

\* measure in centimeters

| Shape                         | Sketch of Shape                                                                     | Sketch of Net of Shape | Area of Base (B)                                      | Perimeter of Base (P)     | Height of Prism (h) | Lateral Surface Area $S = P h$      | Total Surface Area $S = P h + 2 B$                                              |
|-------------------------------|-------------------------------------------------------------------------------------|------------------------|-------------------------------------------------------|---------------------------|---------------------|-------------------------------------|---------------------------------------------------------------------------------|
| Triangular Prism              |    |                        | $A = \frac{bh}{2}$<br>$A = 4$                         | $4 + 4 + 5$<br>$= 12$     | 6                   | $LA = 12 \cdot 6$<br>$LA = 72$      | $SA = (12 \cdot 6) + (2 \cdot 4)$<br>$SA = 72 + 8$<br>$SA = 80$                 |
| Rectangular Prism             |    |                        | $A = l \cdot w$<br>$A = 20$                           | $5 + 4 + 5 + 4$<br>$= 18$ | 2                   | $LA = 18 \cdot 2$<br>$LA = 36$      | $SA = (18 \cdot 2) + (2 \cdot 20)$<br>$SA = 36 + 40$<br>$SA = 76$               |
| Cylinder                      |  |                        | $A = \pi r^2$<br>$A = 16\pi$                          | $C = \pi d$<br>$C = 8\pi$ | 6                   | $LA = 8\pi \cdot 6$<br>$LA = 48\pi$ | $SA = (8\pi \cdot 6) + (2 \cdot 16\pi)$<br>$SA = 48\pi + 32\pi$<br>$SA = 80\pi$ |
| Pentagonal or Hexagonal Prism |  |                        | $A = \frac{bh}{2} (5)$<br>$A = 5 \cdot 5$<br>$A = 25$ | $5 \cdot 5 =$<br>$25$     | 8                   | $LA = 25 \cdot 8$<br>$LA = 200$     | $SA = (25 \cdot 8) + (2 \cdot 25)$<br>$SA = 200 + 50$<br>$SA = 250$             |

# 4.6 Surface Area of Pyramids

\* measure in centimeters

| Shape                           | Sketch of Shape                                                                     | Sketch of Net of Shape | Area of Base (B)                                      | Perimeter of Base (P)     | Slant height (l) | Lateral Surface Area<br>$S = \frac{1}{2} P l$ | Total Surface Area<br>$S = \frac{1}{2} P l + B$ |
|---------------------------------|-------------------------------------------------------------------------------------|------------------------|-------------------------------------------------------|---------------------------|------------------|-----------------------------------------------|-------------------------------------------------|
| Triangular Pyramid              |    |                        | $A = \frac{bh}{2}$<br>$A = 10$                        | $5 + 5 + 5$<br>$= 15$     | 3                | $LA = \frac{1}{2}(15)(3)$<br>$LA = 22.5$      | $SA = 22.5 + 10$<br>$SA = 32.5$                 |
| Rectangular Pyramid             |    |                        | $A = l \cdot w$<br>$A = 15$                           | $5 + 3 + 5 + 3$<br>$= 16$ | 4                | $LA = \frac{1}{2}(16)(4)$<br>$LA = 32$        | $SA = 32 + 15$<br>$SA = 47$                     |
| Cone                            |  |                        | $A = \pi r^2$<br>$A = 9\pi$                           | $C = \pi d$<br>$C = 6\pi$ | 5                | $LA = \frac{1}{2}(6\pi)(5)$<br>$LA = 15\pi$   | $SA = 15\pi + 9\pi$<br>$SA = 24\pi$             |
| Pentagonal or Hexagonal Pyramid |  |                        | $A = \frac{bh}{2} (5)$<br>$A = 6 \cdot 5$<br>$A = 30$ | $4 \cdot 5$<br>$= 20$     | 6                | $LA = \frac{1}{2}(20)(6)$<br>$LA = 60$        | $SA = 60 + 30$<br>$SA = 90$                     |