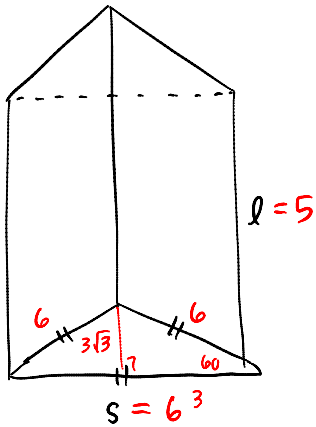


Section 12.1p. 563: 4, 6-11

#4



a. Find the total surface area if

a.  $s = 6$   $l = 5$

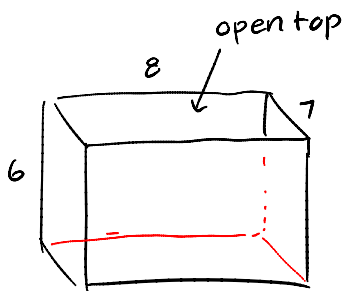
$$\begin{aligned} \text{L.S.A.} &= P_{\text{base}} \cdot h \\ &= 18 \cdot 5 \\ &= 90u^2 \end{aligned}$$

$$\begin{aligned} A_{\text{base}} &= \frac{6 \cdot 3\sqrt{3}}{3} \\ &= 9\sqrt{3}u^2 \end{aligned}$$

$$\begin{aligned} \text{T.S.A.} &= 90 + 9\sqrt{3} + 9\sqrt{3} \\ &= \boxed{90 + 18\sqrt{3}u^2} \end{aligned}$$

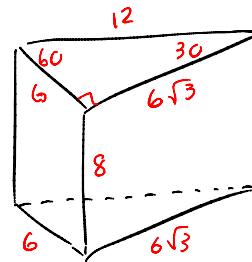
#6

a.



$$\begin{aligned} &56 + 42 + 42 + 48 + 48 \\ &= \boxed{236u^2} \end{aligned}$$

b.



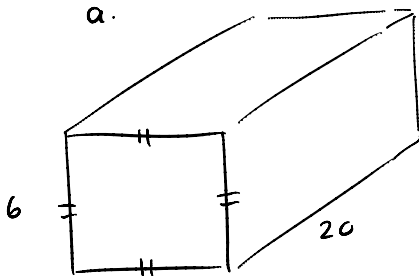
$$\begin{aligned} \text{L.S.A.} &= 48 + 48\sqrt{3} + 96 \\ &= 144 + 48\sqrt{3} \end{aligned}$$

$$A_{\Delta} = \frac{6 \cdot 8}{2} = 24$$

$$\begin{aligned} \text{T.S.A.} &= 144 + 48\sqrt{3} + 24 \\ &= 168 + 48\sqrt{3} \end{aligned}$$

#7

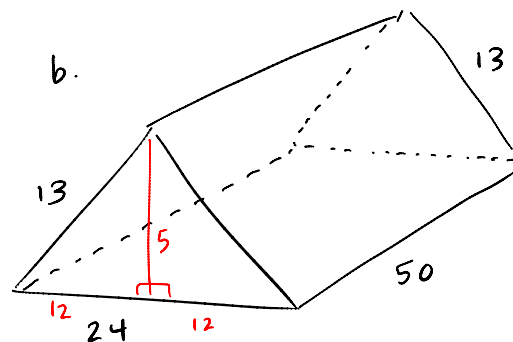
a.



$$\begin{aligned} \text{L.S.A.} &= P_{\text{base}} \cdot h \\ &= 24 \cdot 20 \\ &= 480u^2 \end{aligned}$$

$$\begin{aligned} \text{T.S.A.} &= 480 + 36 + 36 \\ &= 552u^2 \end{aligned}$$

b.

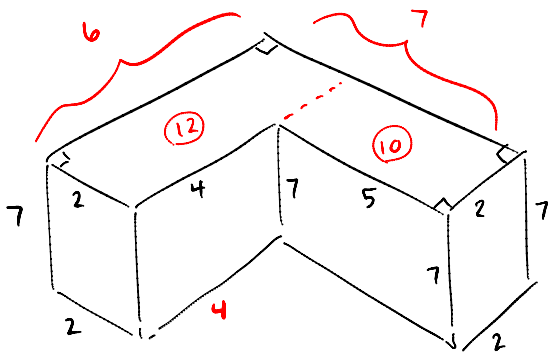


$$\begin{aligned} \text{L.S.A.} &= P_{\text{base}} \cdot h \\ &= 50 \cdot 50 \\ &= 2500u^2 \end{aligned}$$

$$A_{\text{base}} = \frac{24 \cdot 5}{2} = 60$$

$$\begin{aligned} \text{T.S.A.} &= 2500 + 60 + 60 \\ &= \boxed{2620u^2} \end{aligned}$$

#8

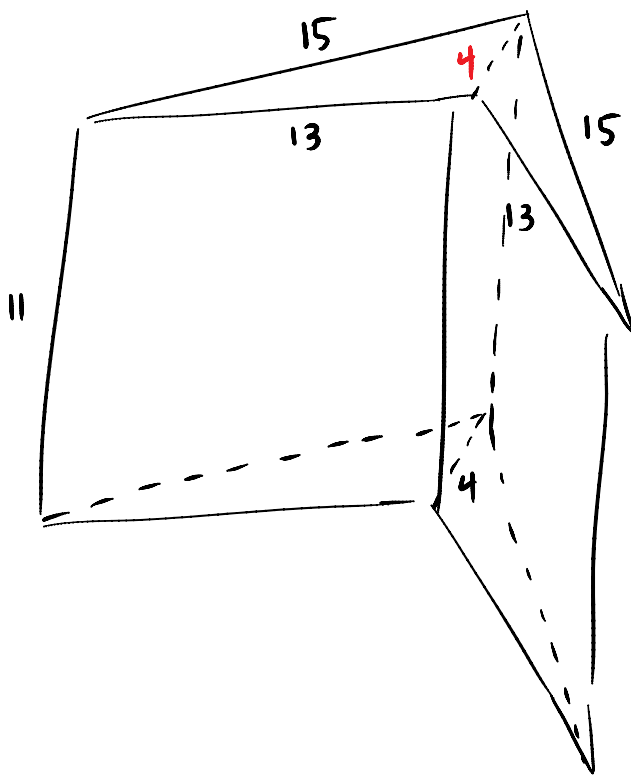


$$\begin{aligned} \text{L.S.A.} &= P_{\text{base}} \cdot h \\ &= 26 \cdot 7 \\ &= 182 \end{aligned}$$

$$A_{\text{base}} = 22$$

$$\text{T.S.A.} = 182 + 22 + 22 = \boxed{226 u^2}$$

#9



$$\begin{aligned} \text{L.S.A.} &= P_{\text{base}} \cdot h \\ &= 56 \cdot 11 \\ &= \boxed{616} \end{aligned}$$

$$A_{\text{base}}: s = \frac{32}{2} = 16$$

$$\begin{aligned} &\hookrightarrow \sqrt{16(1)(3)(12)} \\ &4 \cdot 2 \cdot 3 \cdot 1 \quad \cancel{4} \quad \cancel{3} \\ &= 24 \end{aligned}$$

$$A_{\text{base}} = 48$$

$$\text{T.S.A.} = 616 + 48 + 48 = \boxed{712}$$

- #10 The perimeter of the scalene base of a pentagonal right prism is 17, and a lateral edge of the prism measures 10. Find the prism's lateral area.

$$L.S.A = P_{\text{base}} h$$

$$= 17 \cdot 10$$

$$= \boxed{170}$$

#11

A 6in cube is painted on the outside and cut into

