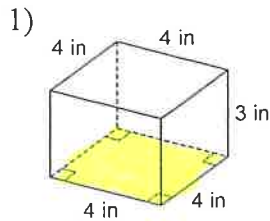


- Name each shape
- Highlight the base

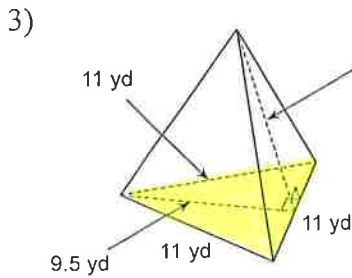
Assignment 12.7 Surface Area

Find the surface area of each figure. Round your answers to the nearest hundredth, if necessary.



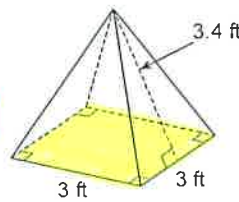
$$\begin{aligned}
 SA &= 2B + PH \\
 &= 2(b \cdot h) + (2b + 2h)H \\
 &= 2(4 \cdot 4) + (2 \cdot 4 + 2 \cdot 4)3 \\
 &= 2(16) + (16)(3) \\
 &= 32 + 48 \\
 &= 80 \text{ in}^2
 \end{aligned}$$

Rectangular prism



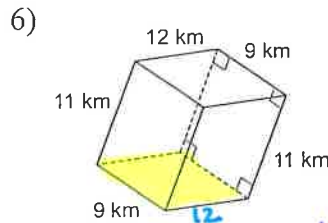
$$\begin{aligned}
 SA &= B + \frac{1}{2}Pl \\
 &= (\frac{1}{2}bh) + \frac{1}{2}(s_1 + s_2 + s_3)l \\
 &= (\frac{1}{2} \cdot 9.5 \cdot 11) + \frac{1}{2}(11 + 11 + 11)(11.4) \\
 &= 52.25 + \frac{1}{2}(33)(11.4) \\
 &= 52.25 + 188.1 \\
 &= 240.35 \text{ yd}^2
 \end{aligned}$$

Triangular pyramid



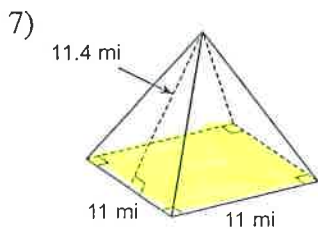
$$\begin{aligned}
 SA &= B + \frac{1}{2}Pl \\
 &= (b \cdot h) + \frac{1}{2}(4s)l \\
 &= (3 \cdot 3) + \frac{1}{2}(4 \cdot 3)3.4 \\
 &= 9 + \frac{1}{2}(12)(3.4) \\
 &= 9 + 20.4 \\
 &= 29.4 \text{ ft}^2
 \end{aligned}$$

Square pyramid



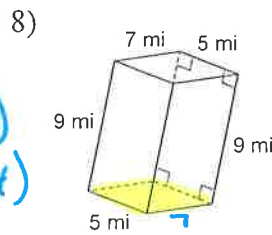
$$\begin{aligned}
 SA &= 2B + PH \\
 &= 2(b \cdot h) + (2b + 2h)H \\
 &= 2(9 \cdot 12) + (2 \cdot 9 + 2 \cdot 12)11 \\
 &= 2(108) + (42)11 \\
 &= 216 + 462 \\
 &= 678 \text{ km}^2
 \end{aligned}$$

Rectangular prism



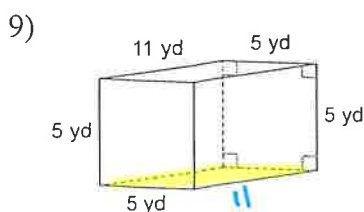
$$\begin{aligned}
 SA &= B + \frac{1}{2}Pl \\
 &= (b \cdot h) + \frac{1}{2}(4s)l \\
 &= (11 \cdot 11) + \frac{1}{2}(4 \cdot 11)(11.4) \\
 &= 121 + \frac{1}{2}(44)(11.4) \\
 &= 121 + 250.8 \\
 &= 371.8 \text{ mi}^2
 \end{aligned}$$

Square pyramid



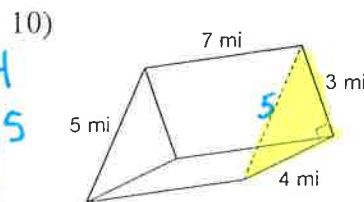
$$\begin{aligned}
 SA &= 2B + PH \\
 &= 2(5 \cdot 7) + (2 \cdot 5 + 2 \cdot 7)9 \\
 &= 2(35) + (24)9 \\
 &= 70 + 216 \\
 &= 286 \text{ mi}^2
 \end{aligned}$$

Rectangular prism



$$\begin{aligned}
 SA &= 2B + PH \\
 &= 2(b \cdot h) + (2b + 2h)H \\
 &= 2(5 \cdot 11) + (2 \cdot 5 + 2 \cdot 11)5 \\
 &= 2(55) + (32)5 \\
 &= 110 + 160 \\
 &= 270 \text{ yd}^2
 \end{aligned}$$

Rectangular prism



$$\begin{aligned}
 SA &= 2B + PH \\
 &= 2(\frac{1}{2}bh) + (s_1 + s_2 + s_3)l \\
 &= 2(\frac{1}{2} \cdot 3 \cdot 4) + (3 + 4 + 5)7 \\
 &= 2(6) + (12)7 \\
 &= 12 + 84 \\
 &= 96 \text{ mi}^2
 \end{aligned}$$

Triangular prism