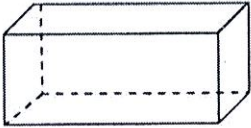
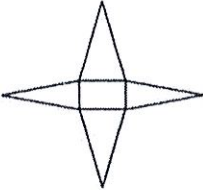
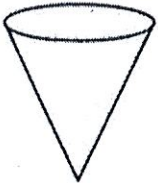
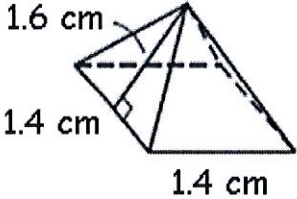
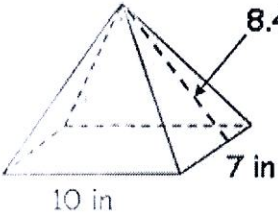
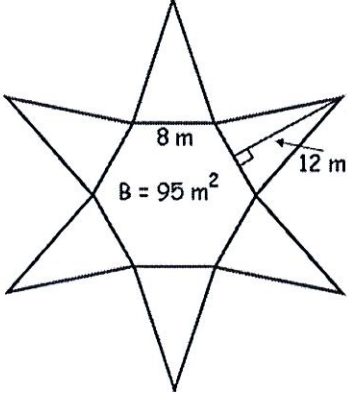
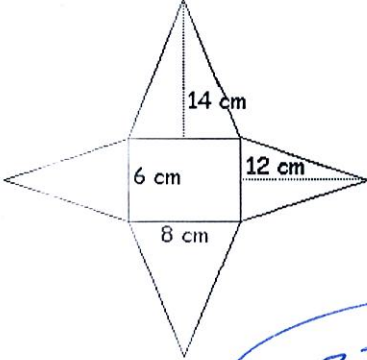


Unit 12 Study Guide

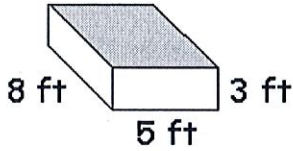
Name: Key

Name the figures and how many faces, edges and vertices it has.				
	Faces	Edges	Vertices	Name
1. 	6	12	8	Rectangular prism
2. 	5	8	5	Rectangular pyramid
3. 	1	0	0 or 1	Cone

Find the surface area of the figures

<p>4. </p> <p> $1.4 \cdot 1.4 = 1.96$ $\frac{1.6 \cdot 1.4}{2} = 1.12$ $\begin{array}{r} 1.12 \\ \times 4 \\ \hline 4.48 \end{array}$ </p> <p><u>6.44 cm²</u></p>	<p>5. </p> <p> $10 \cdot 7 = 70$ $\frac{8.4 \cdot 7}{2} = 29.4$ $\frac{29.4}{2} = 14.7$ $\frac{8.4 \cdot 10}{2} = 42.2$ $14.7 + 42.2 = 56.9$ </p> <p><u>212.8 in²</u></p>
<p>6. </p> <p> $\frac{8 \cdot 12}{2}$ </p> <p><u>383 m²</u></p>	<p>7. </p> <p> $6 \cdot 8 = 48$ $\frac{8 \cdot 14}{2} = 56.2$ $\frac{12 \cdot 6}{2} = 36.2$ $48 + 56.2 + 36.2 = 140.2$ </p> <p><u>232 cm²</u></p>

8.

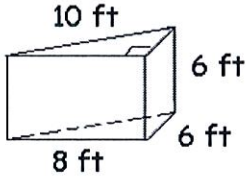


Find The Volume

$$8 \cdot 5 \cdot 3$$

$$120 \text{ ft}^3$$

9.



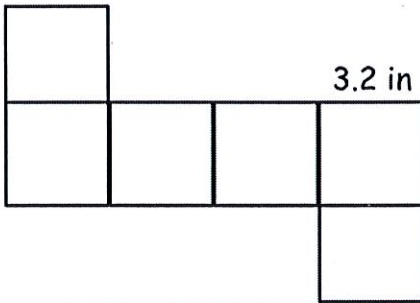
Find the Surface Area

$$\begin{aligned} 8 \cdot 6 &= 48 \\ 6 \cdot 6 &= 36 \\ 10 \cdot 6 &= 60 \end{aligned}$$

$$\frac{8 \cdot 6}{2} = \frac{48}{2} = 24$$

$$192 \text{ ft}^2$$

10.



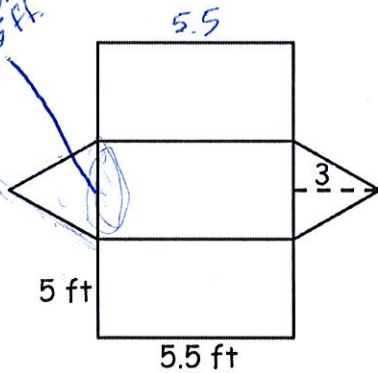
Find the Surface Area

$$\begin{aligned} &3.2 \\ &\times 3.2 \\ \hline &10.24 \\ &\times 6 \\ \hline \end{aligned}$$

$$61.44 \text{ in}^2$$

11.

assume 5 ft.



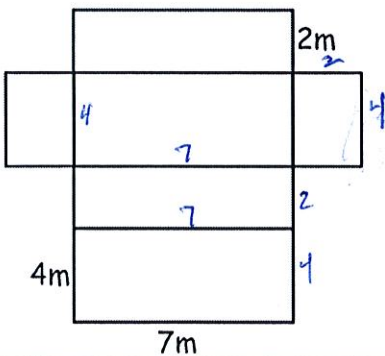
Find the Surface Area

$$\begin{aligned} &5.5 \\ &\times 5 \\ \hline &27.5 \\ &\times 3 \\ \hline &82.5 \end{aligned}$$

$$\frac{5 \cdot 3}{2} = \frac{15}{2} = 7.5$$

$$97.5 \text{ ft}^2$$

12.



Find the Surface Area

$$\begin{aligned} &7 \cdot 4 = 28 \\ &\quad \cdot 2 \\ \hline &56 \end{aligned}$$

$$\begin{aligned} &7 \cdot 2 = 14 \\ &\quad \cdot 2 \\ \hline &28 \end{aligned}$$

$$\begin{aligned} &2 \cdot 4 = 8 \\ &\quad \cdot 2 \\ \hline &16 \end{aligned}$$

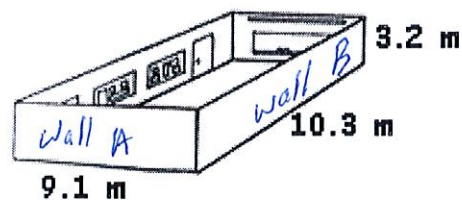
$$100 \text{ m}^2$$

Solve.

13. A classroom has the dimensions shown.

(a) What is the area of the floor?

$$93.73 \text{ m}^2$$



(b) What is the area of one wall?

$$\frac{\text{wall A}}{29.12 \text{ m}^2}$$

$$\frac{\text{Wall B}}{32.96 \text{ m}^2}$$

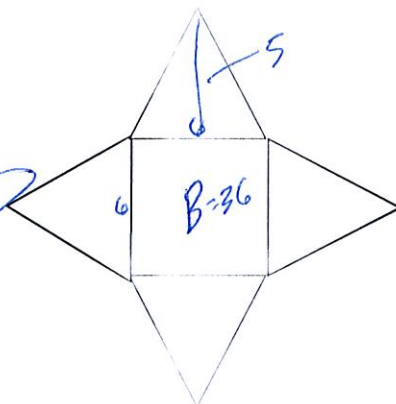
(c) What is the total area of the four walls and floor?

$$217.91 \text{ m}^2$$

15) The area of the base is 36 square feet. The height of the triangle is 5 feet. Find the surface area.

$$\frac{6.5}{2} = 3.25$$
$$\frac{1}{60}$$
$$+ 36$$

$$96 \text{ ft}^2$$



16. A company manufactures number cubes with a side length of $2\frac{1}{2}$ centimeters long. What is the volume of each cube?

$$2.5 \times 2.5 \times 2.5$$

$$15.625 \text{ cm}^3$$

17. A right rectangular prism has edges of $4\frac{1}{4}$ inches, 3 inches, and $\frac{1}{2}$ inches. How many cubes with lengths of $\frac{1}{4}$ inches would be needed to fill the prism?

$$4.25 \times 3 \times 0.5$$
$$6.375$$

$$\frac{1}{4} \cdot \frac{1}{4} \cdot \frac{1}{4}$$
$$0.015625$$

$$6.375 \div 0.015625$$

$$408 \text{ cubes}$$