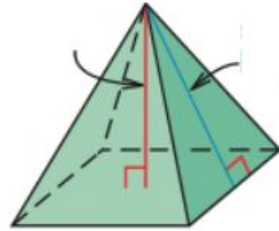
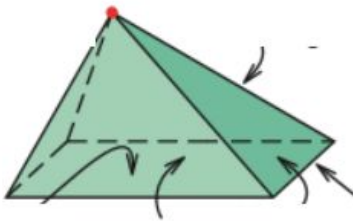
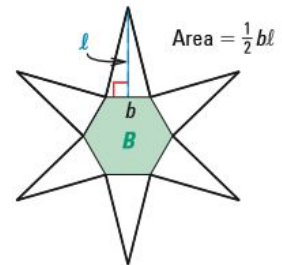


12.3 Surface Area of Pyramids and Cones
Geometry CP

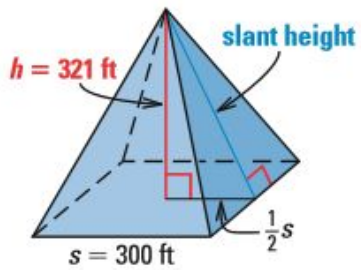
Pyramid:



Regular Pyramid:



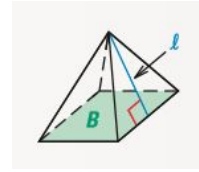
1. Use the diagram to find the area of each lateral face of this regular pyramid



Regular Pyramid:

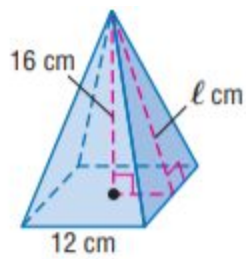
$$S = B + \frac{1}{2}Pl$$

Where B is the area of the base, P is the perimeter of the base, and l is the slant height

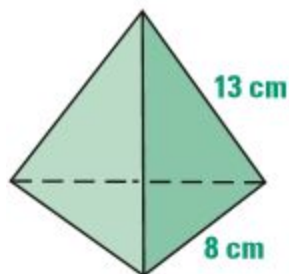


2. Find the surface area of the regular pyramid below:

a.

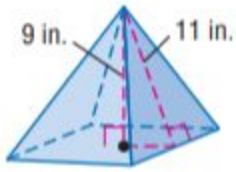


b.

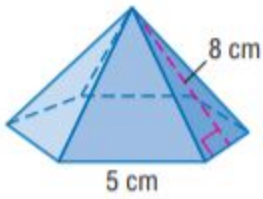


12.3 Surface Area of Pyramids and Cones
Geometry CP

c.

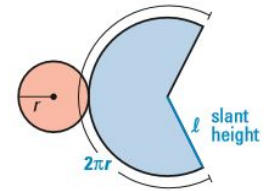
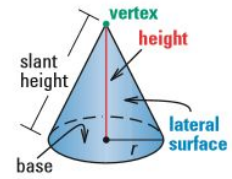


3. Find the surface area of the regular pyramid below:



12.3 Surface Area of Pyramids and Cones
Geometry CP

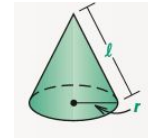
Cone:



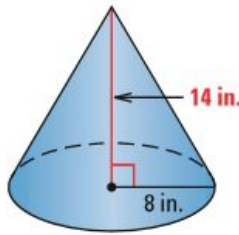
Right Cone

$$S = \pi r^2 + \pi r l$$

Where r is the radius of the base and l is the slant height.

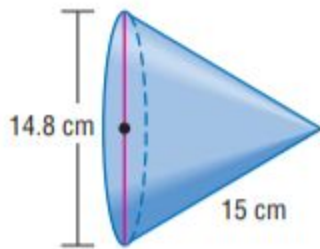


4. Find the slant height of the cone below:



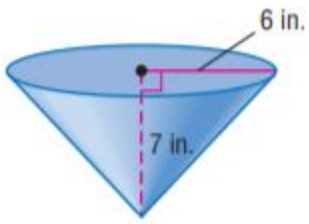
5. Find the surface area of the cone below:

a.

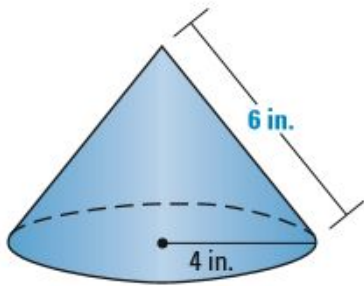


12.3 Surface Area of Pyramids and Cones
Geometry CP

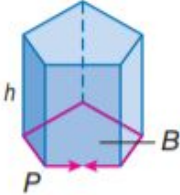
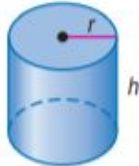
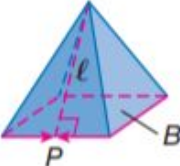

b.



c.



12.3 Surface Area of Pyramids and Cones
Geometry CP

ConceptSummary Lateral and Surface Areas of Solids			
Solid	Model	Lateral Area	Surface Area
prism		$L = Ph$	$S = L + 2B$ or $S = Ph + 2B$
cylinder		$L = 2\pi rh$	$S = L + 2B$ or $S = 2\pi rh + 2\pi r^2$
pyramid		$L = \frac{1}{2}Pl$	$S = \frac{1}{2}Pl + B$
cone		$L = \pi rl$	$S = \pi rl + \pi r^2$