12.3 Surface Area of Pyramids and Cones

**Pyramids**
- All faces except one intersect at one point called ________________
- The __________ is the face that does not intersect at the vertex
- __________ are faces that meet in the vertex
- __________ are edges that meet in the vertex
- __________ is a segment that goes from the vertex and is perpendicular to the base

**Regular Pyramid**
- Base is a ________________
- The vertex is directly above the ________________
- In a regular pyramid, all the lateral faces are ________________
- The height of each lateral face is called the ________________ (ℓ)

**Lateral Area**
- \( L = \) ________________

**Surface Area of a Regular Pyramid**
\[ S = \] ________________

Where \( B = \) base area, \( P = \) base perimeter, \( ℓ = \) slant height

Find the surface area of the regular pentagonal pyramid.
Cones

- Cones are just like pyramids except the base is a ________________
- Lateral Area = ________________

**Surface Area of a Right Cone**

\[ S = \] \\
Where \( r = \) base radius, \( \ell = \) slant height

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The So-Good Ice Cream Company makes Cluster Cones. For packaging, they must cover each cone with paper. If the diameter of the top of each cone is 6 cm and its slant height is 15 cm, what is the area of the paper necessary to cover one cone?

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814 #2-32 even, 35-39 all = 21
Extra Credit 817 #2, 6 = +2