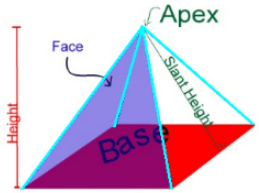
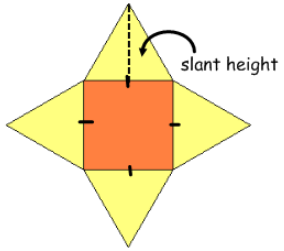
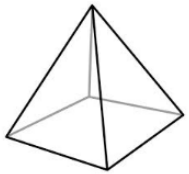
Right Regular Pyramid:

- Has a regular polygon base
- Lateral faces are congruent isosceles triangles
- Faces join together at a central point called the APEX
- The Height connects the center of the base to the apex
- The slant height refers to the height of the triangular faces.

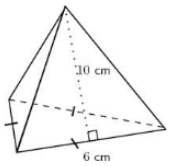




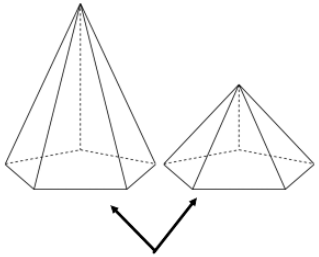
Like prisms, right regular pyramids are named for their bases:



Square-based Pyramid



Triangular Pyramid



Pentagonal Pyramid

Remember: **Regular** pyramids have **regular** bases; meaning that the sides and angles in the base are all congruent.

Area of a right regular pyramid:

$$A_l = \frac{P_b \times a}{2}$$ (slant height)

$$A_t = A_b + A_l \quad or \quad A_t = A_b + \frac{P_b \times a}{2}$$

Calculate the lateral area and total surface area of a regular pentagonal pyramid with a slant height of 15.8 cm, an apothem that measures 5 cm and side lengths of 7 cm.

Painting Shingles: You are asked to coat the shingles on the roof of your backyard corner shed with a water resistant varnish. The roof of your shed is in the shape of a regular triangular pyramid. Each can of varnish covers an area of $4m^2$. If each can costs $15, how much does it cost to complete this project? (Include a 13% tax in your final answer)