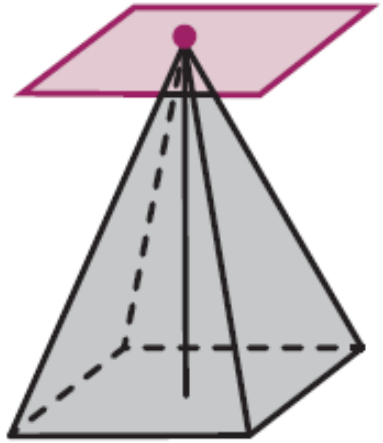
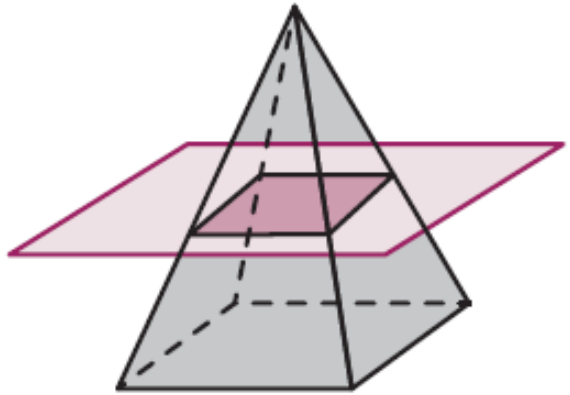
1. Describe the shape of each cross-section.

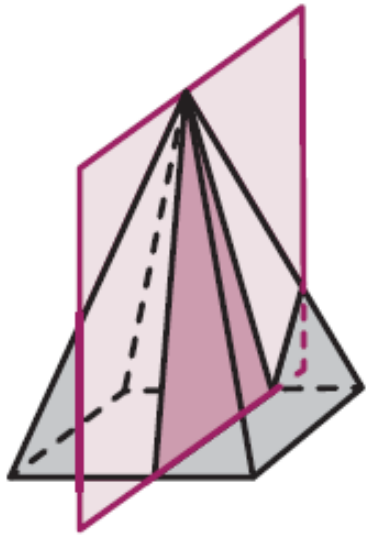
a.



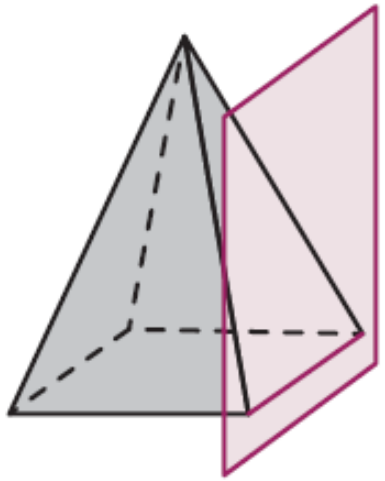
b.



c.



d.



6. Determine the conic section that results from the intersection of the double-napped cone shown and each plane described.

   a. A plane that passes through one nappe of the double-napped cone and is perpendicular to the axis of the cone

      The intersection is a(n) _____.

   b. A plane that passes through one nappe of the double-napped cone and is parallel to the edge of the cone

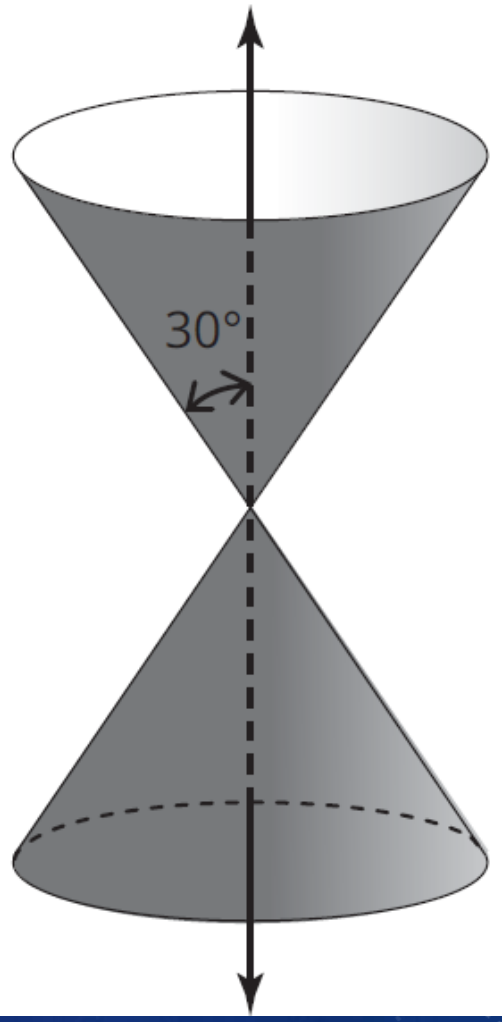
      The intersection is a(n) _____.

   c. A plane that passes through both nappes of the double-napped cone and is parallel to the axis of the cone

      The intersection is a(n) _____.

   d. A plane that passes through one nappe of the double-napped cone and is at an angle of 50° from the axis of the cone

      The intersection is a(n) _____.



Review

1. Determine each sum.

   a. $\sqrt{-24} + \sqrt{-54}$

   b. $\sqrt{-75} + \sqrt{-48}$

2. Determine each product.

   a. $\sqrt{-15} \cdot \sqrt{10}$

   b. $\sqrt{-10} \cdot \sqrt{-10}$

3. Solve for x by completing the square.

   a. $x^2 + 6x - 3 = 8$

   b. $x^2 - 10x + 4 = 11$