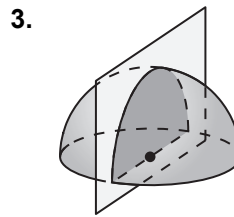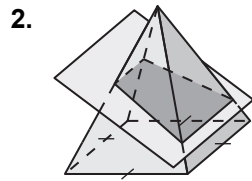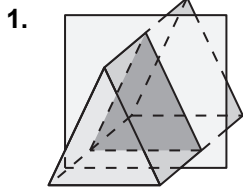# 1.3   Practice B

In Exercises 1–3, describe the cross section formed by the intersection of the plane and the solid.
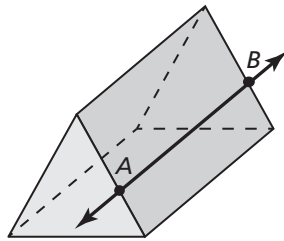
1.

2.

3.

In Exercises 4–6, draw the cross section formed by the described plane that contains $\overleftrightarrow{AB}$. What is the shape of the cross section?
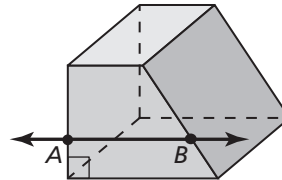
4. plane is perpendicular to base
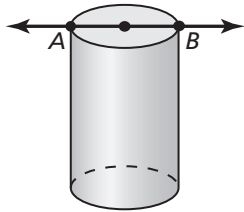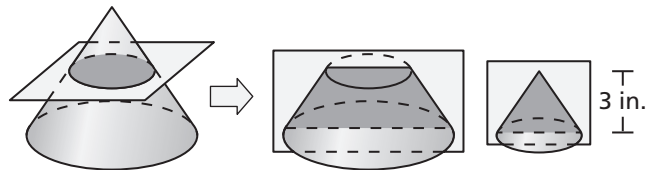

5. plane is parallel to base

6. plane is parallel to base

7. A cone with a height of 6 inches and radius of 4 inches is sliced in half by a horizontal plane, creating a circular cross section with a radius of 2 inches. Each piece is then sliced in half by a vertical plane, as shown.

a. Describe the shape formed by each cross section.

b. What are the perimeters and areas of the cross sections?

c. Suppose the horizontal plane is tilted, slicing the original cone as shown at the right. Is the cross section a circle? If it is not, describe how it is different from a circle and sketch the cross section.