



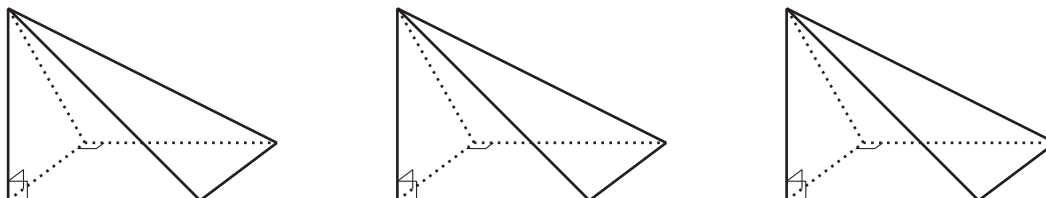
3. For each pair of solids, determine if their volumes are the same or different. If the volumes are different, identify the solid with the greatest volume. Explain your reasoning.
- A prism and a pyramid have the same height. The pyramid's base has 3 times the area of the prism's base.
  - A pyramid and a cylinder have bases with the same area. The cylinder's height is 3 times that of the pyramid.
  - A cone and a cylinder have the same height. The cone's radius is 3 times the length of the cylinder's radius.
4. A pyramid has a height of 8 inches and a volume of 120 cubic inches. Determine 2 possible shapes, with dimensions, for the base.

(From Unit 5, Lesson 14.)

5. A toy company packages modeling clay in the shape of a rectangular prism with dimensions 6 inches by 1 inch by  $\frac{1}{2}$  inch. They want to change the shape to a rectangular pyramid that uses the same amount of clay. Determine 2 sets of possible dimensions for the pyramid.

(From Unit 5, Lesson 14.)

6. These 3 congruent square pyramids can be assembled into a cube with side length 2 feet. What is the volume of each pyramid?



(From Unit 5, Lesson 12.)

7. A monster truck wheel has an area of  $324\pi$  square inches. A toy company wants to create a scaled copy of the monster truck with a wheel area of  $9\pi$  square inches. What scale factor should the company use?

(From Unit 5, Lesson 7.)