

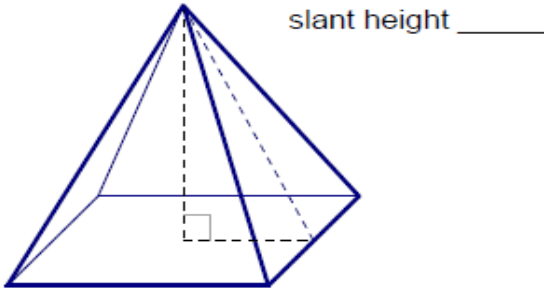
The Container!

The GeoBellies company wishes to make a new type of container for their product. The designer has created two containers: one the shape of a square-based pyramid, and the other a cone.

Your first job is to determine which container holds more.

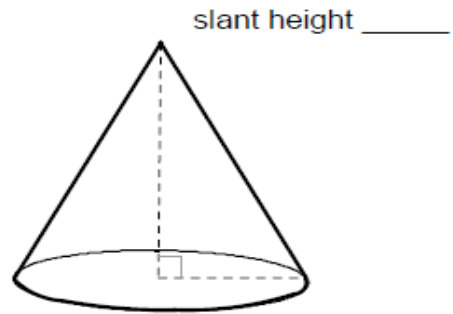
1. Label the dimensions from your group card.

Pyramid



base length _____

Cone



diameter _____

2. Determine the height of each container. Show all of your work.
3. How much can each container hold? Show your work.
4. If the geobellies cost $\$0.005/\text{cm}^3$, how much will it cost to fill each container?
5. Identify the shape with the greater volume.
6. Make a recommendation for the preferred design shape. Provide at least two reasons for your choice.

Your second job is to determine which container has the most surface area.

7. Discuss with your partner how you could find the height of each container. Record your ideas using words, pictures, and symbols
8. Determine the surface area of each container. Show all of your work.
9. If the material to make each container costs $\$0.075/\text{cm}^2$, how much will it cost to make each container?
10. Now make another recommendation for the preferred design shape. Provide at least two reasons for your choice.

Your third job is to determine what price to charge.

11. FINALLY: How much should you charge your customers for your product. Provide at least two reasons for your choice.