

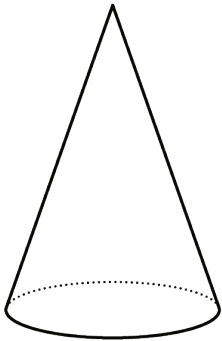
Unit 6 Lesson 12: Filling Containers

1 Which One Doesn't Belong: Solids (Warm up)

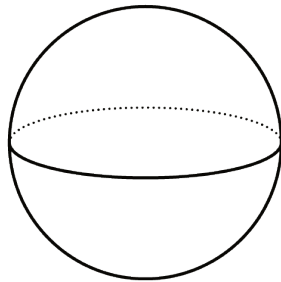
Student Task Statement

These are drawings of three-dimensional objects. Which one doesn't belong? Explain your reasoning.

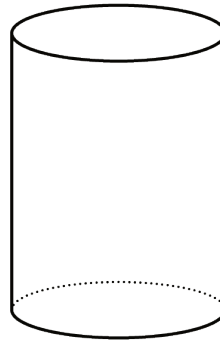
A



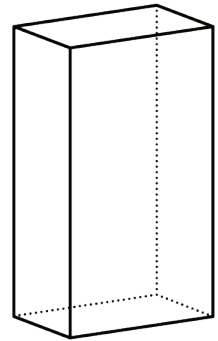
B



C



D



2 Height and Volume

Student Task Statement

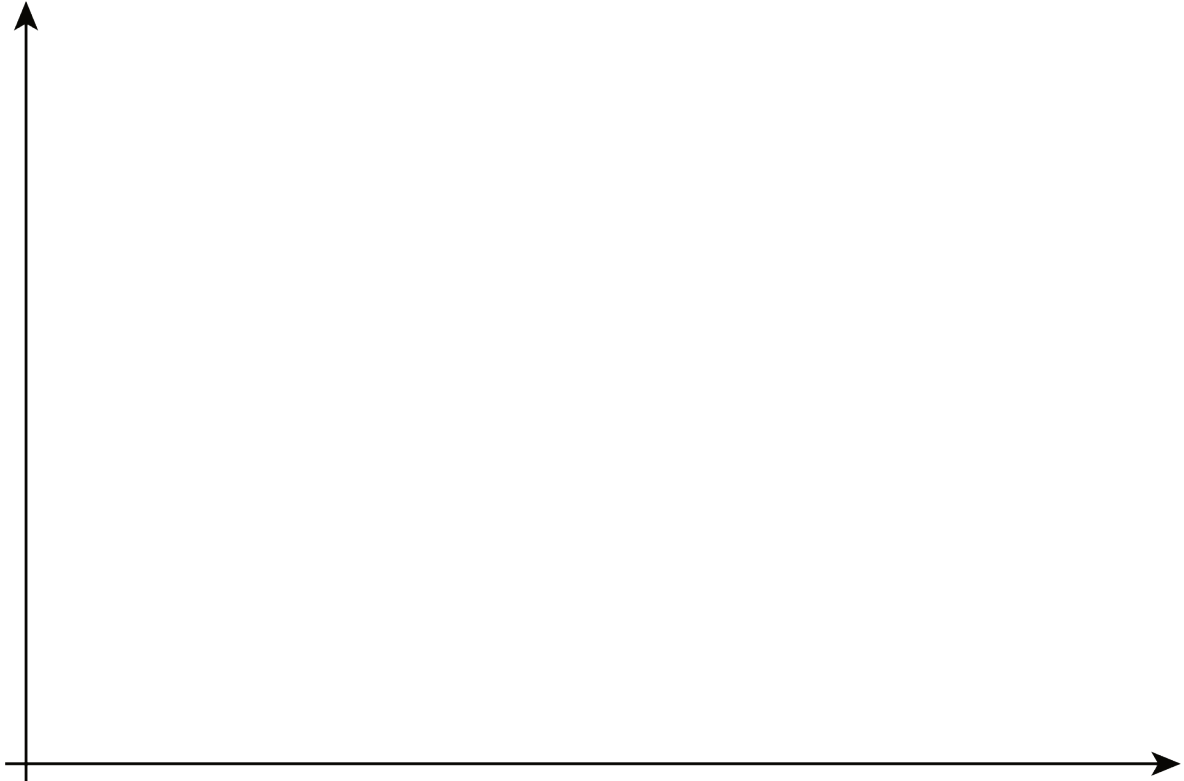
Your teacher will give you a graduated cylinder, water, and some other supplies. Your group will use these supplies to investigate the height of water in the cylinder as a function of the water volume.

1. Before you get started, make a prediction about the shape of the graph.

2. Fill the cylinder with different amounts of water and record the data in the table.

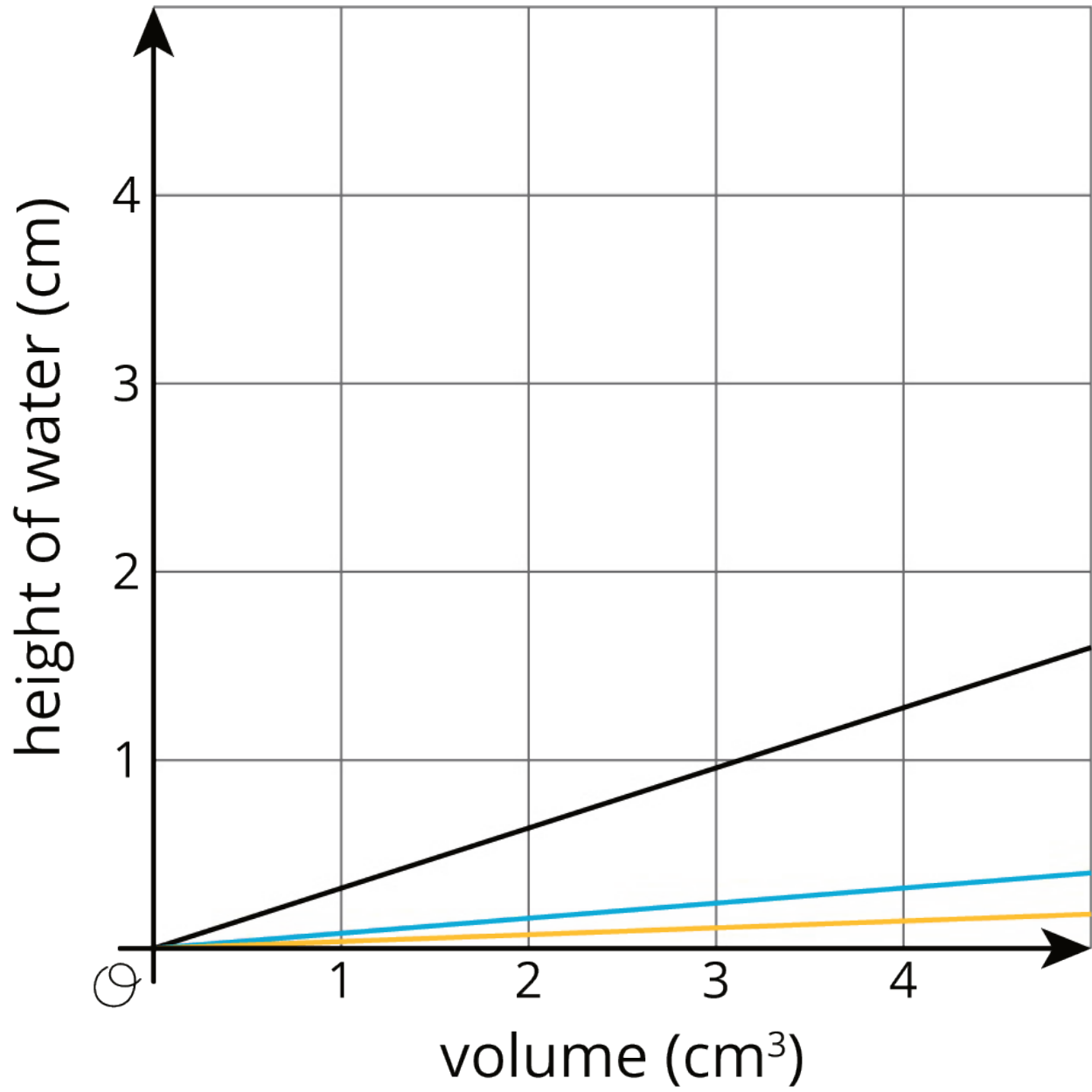
| | | | | | | |
|-------------|--|--|--|--|--|--|
| volume (ml) | | | | | | |
| height (cm) | | | | | | |

3. Create a graph that shows the height of the water in the cylinder as a function of the water volume.



4. Choose a point on the graph and explain its meaning in the context of the situation.

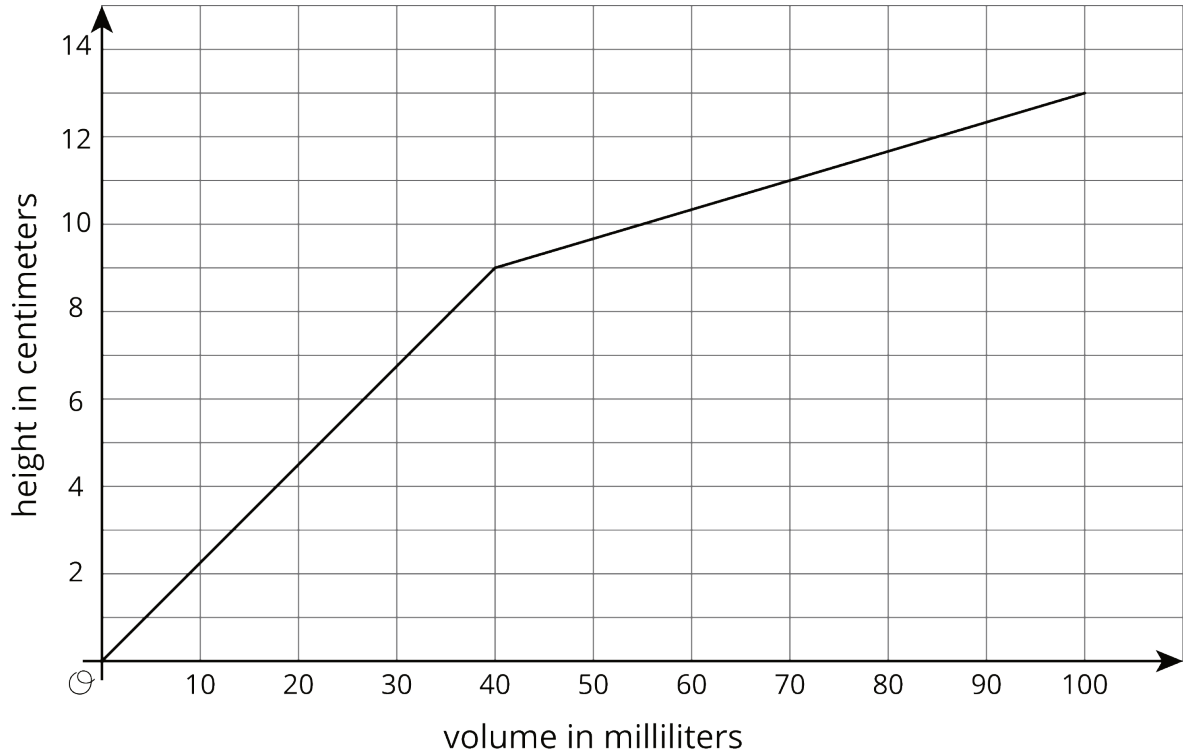
Activity Synthesis



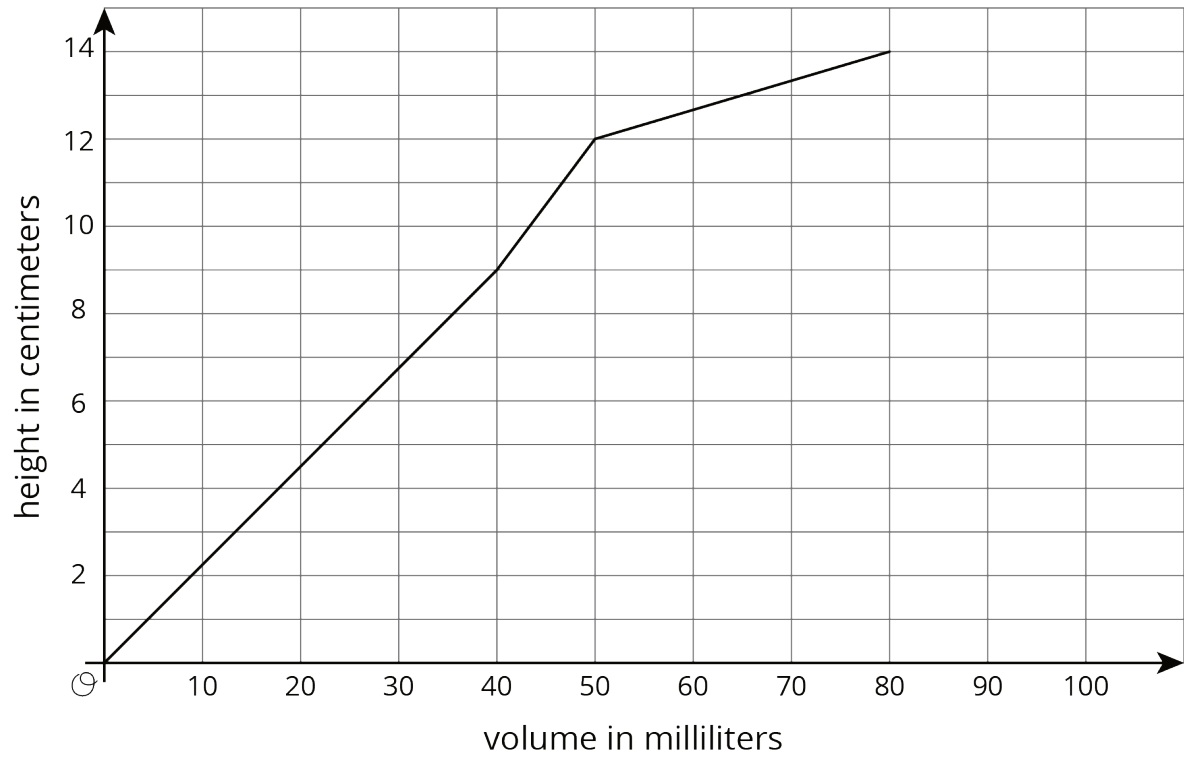
3 What Is the Shape?

Student Task Statement

1. The graph shows the height vs. volume function of an unknown container. What shape could this container have? Explain how you know and draw a possible container.



2. The graph shows the height vs. volume function of a different unknown container. What shape could this container have? Explain how you know and draw a possible container.



3. How are the two containers similar? How are they different?