

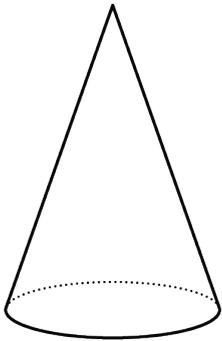
# Unit 5 Lesson 11: Filling Containers

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

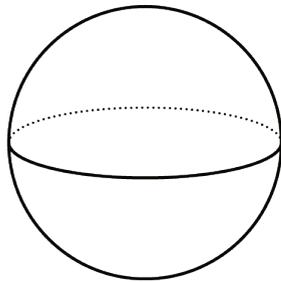
### Student Task Statement

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

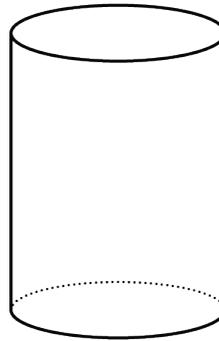
A



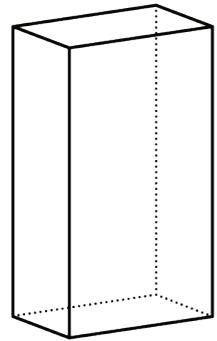
B



C



D



## 2 Height and Volume

### Student Task Statement

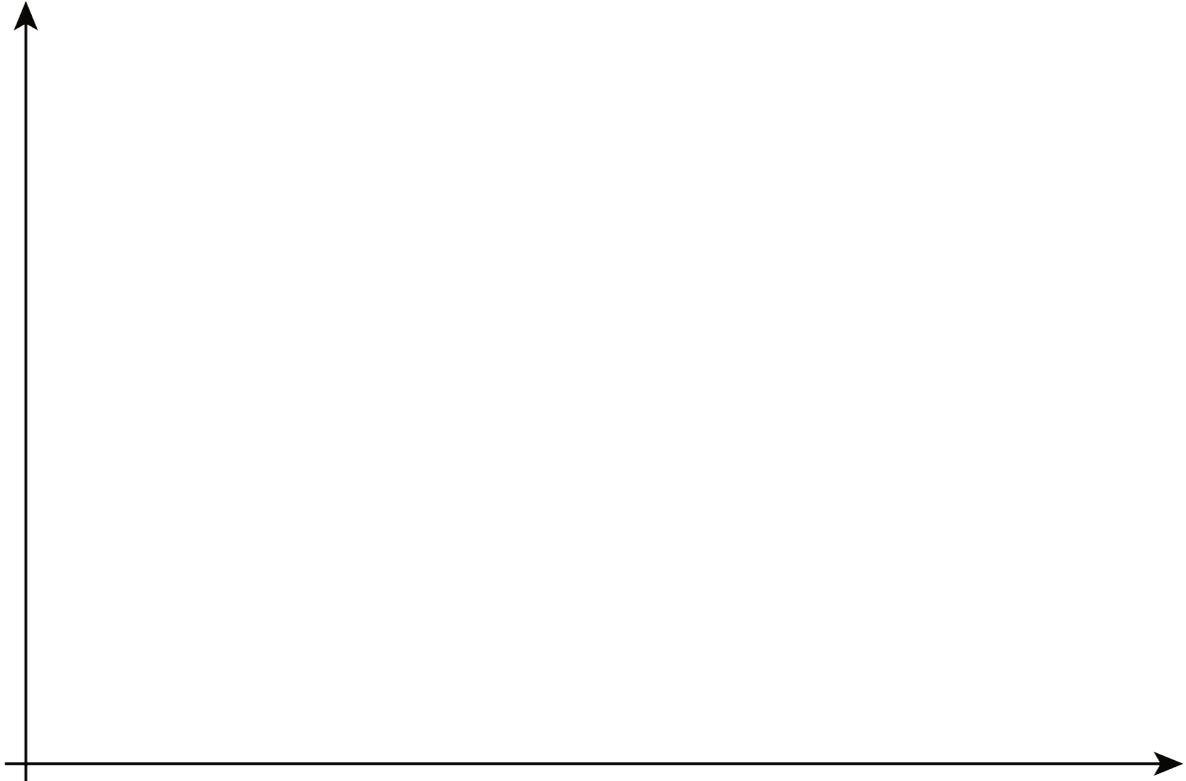
Your teacher will give you a graduated cylinder, water, and some other supplies. Your group will use these supplies to investigate the height of water in the cylinder as a function of the water volume.

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.

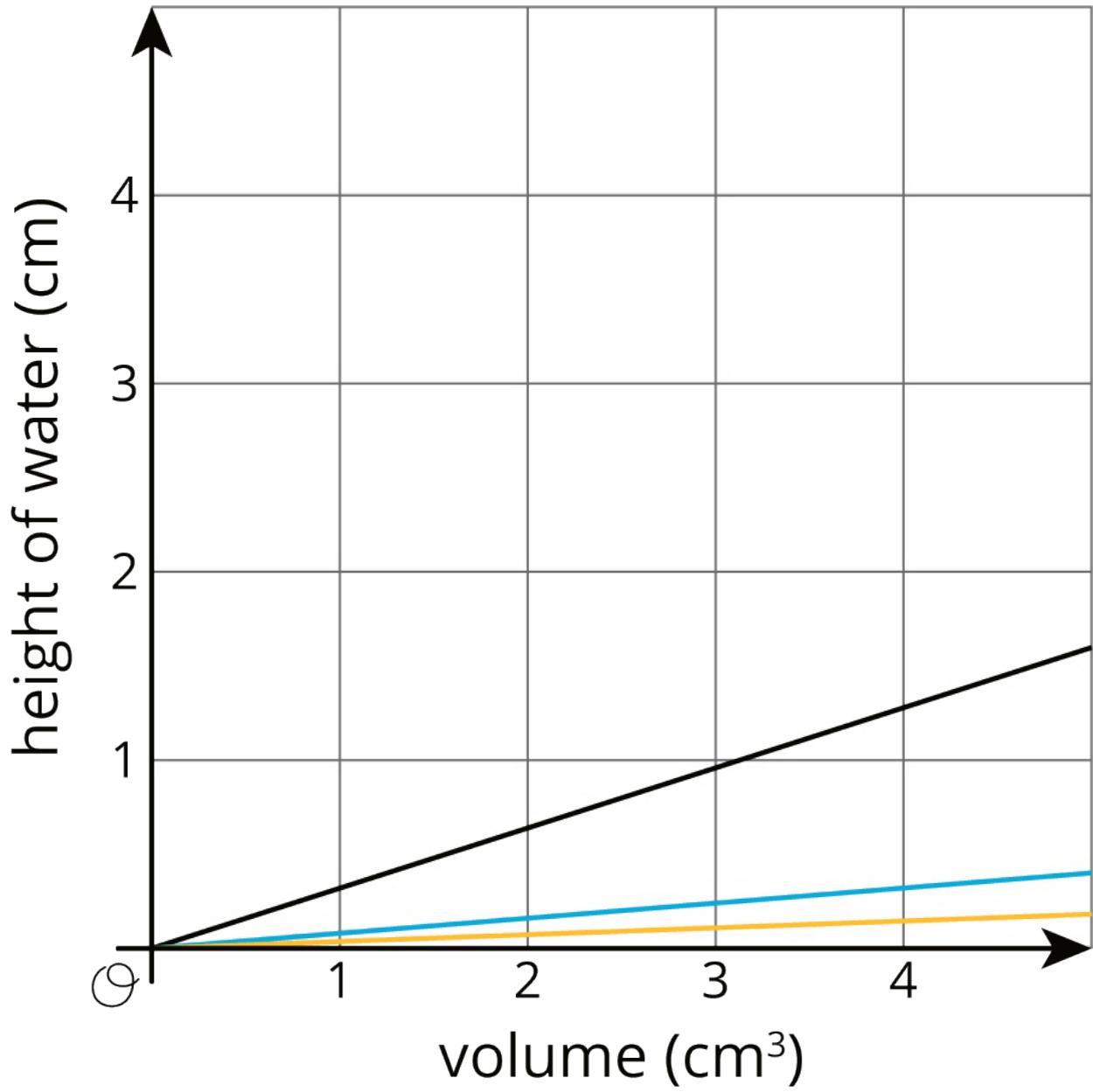
volume (ml)						
height (cm)						

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.

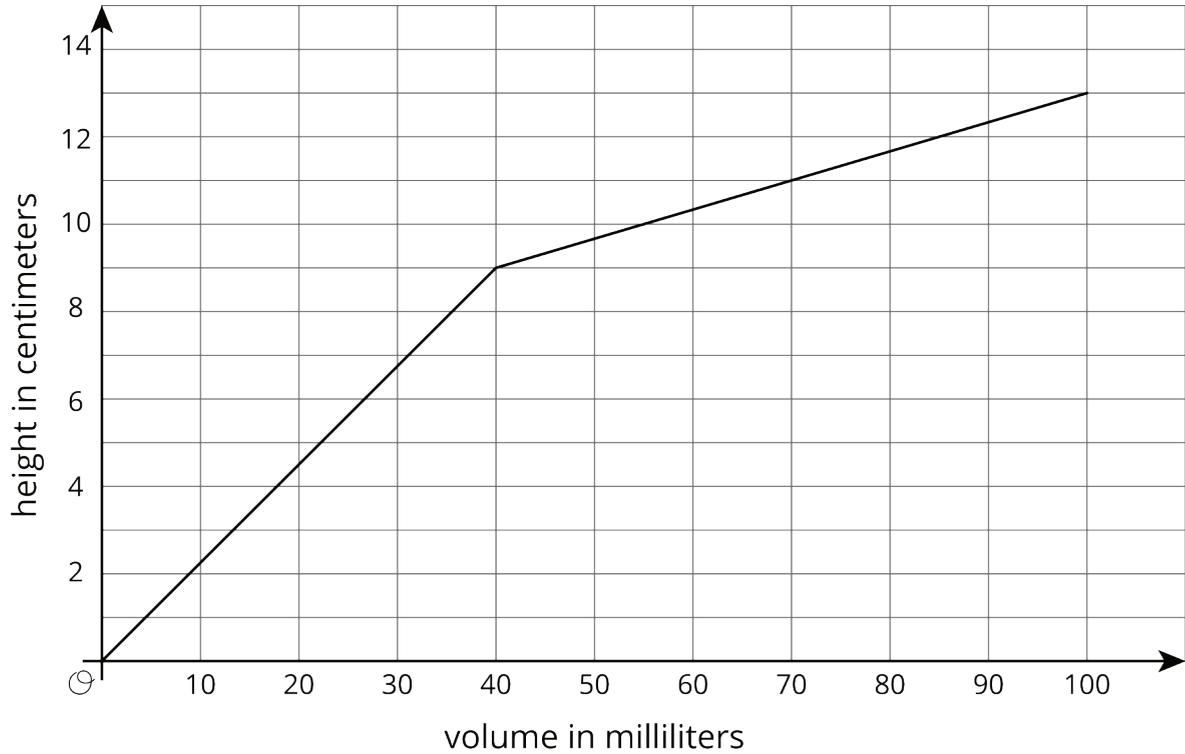
Activity Synthesis



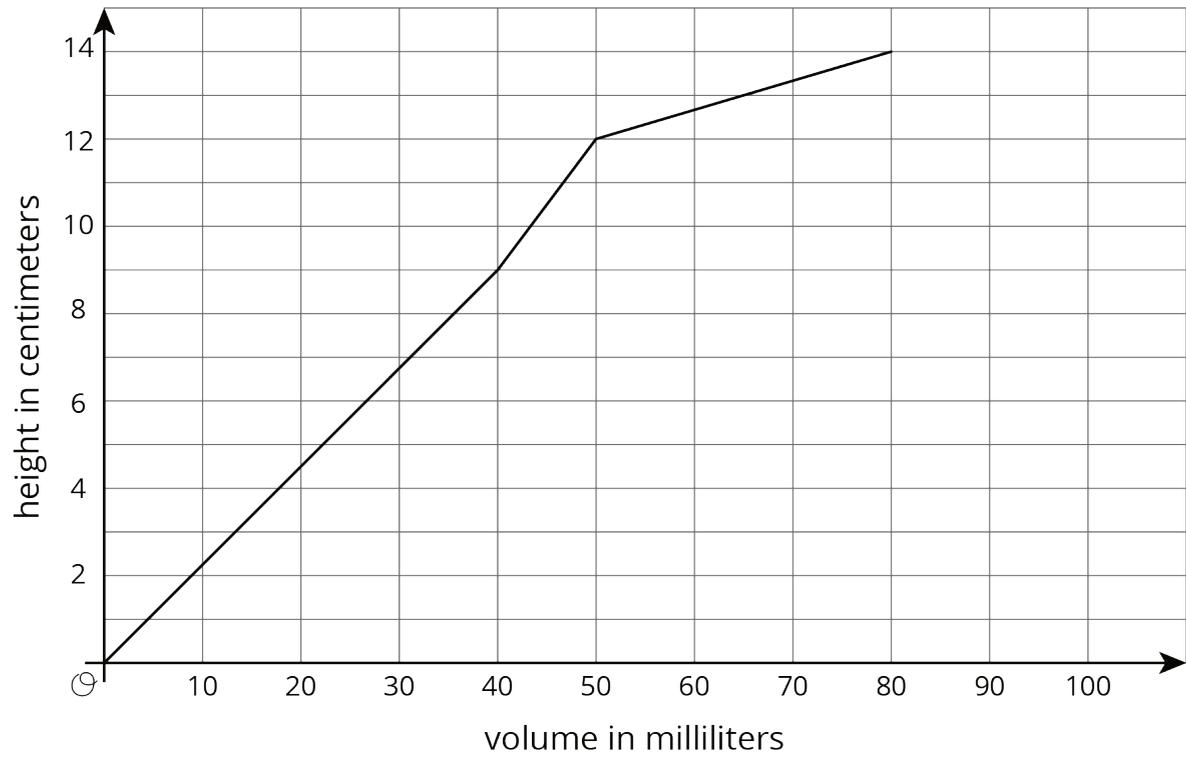
### 3 What Is the Shape?

#### 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?