

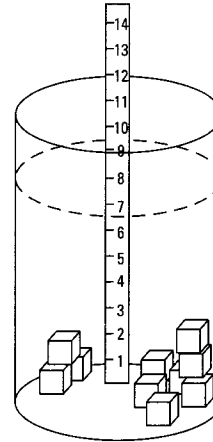


# ACTIVITY 16

**INTERCEPT AND SLOPE**  
Use with **Lesson 7-4.**

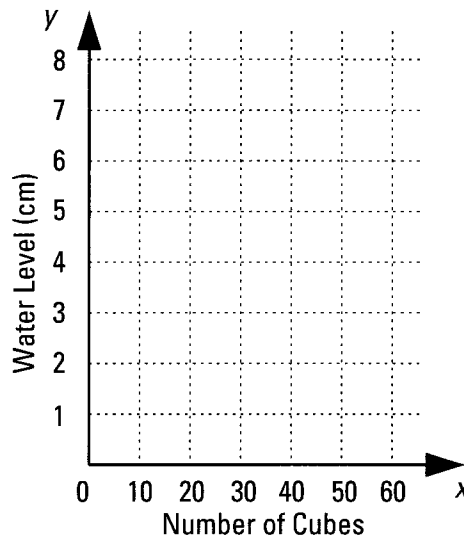
**Materials:** Cylindrical container, plastic centimeter ruler, water, 60 centimeter cubes  
**Group Size:** Small groups

Put the ruler into the cylinder. One member of the group should hold the ruler so it stands straight along the side of the cylinder. Fill the cylinder with water to 4 cm.



- Drop 10 cubes into the cylinder, read the level of the water, and record it to the nearest tenth of a centimeter in the table below.
- Add another 10 cubes and record the water level in the table. Continue until the table is complete.
- On the grid provided, graph the data given in your table.

| Number of Cubes | Water Level (cm) |
|-----------------|------------------|
| 0               | 4.0              |
| 10              |                  |
| 20              |                  |
| 30              |                  |
| 40              |                  |
| 50              |                  |
| 60              |                  |



- The points on your graph should lie on the same straight line. Draw the line.
- The **y-intercept** of the line is the y-coordinate of the point where the line crosses the y-axis. What is the y-intercept of your line and what does this number represent in terms of the experiment you performed?  
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- What is the slope of your line and what does this number represent in terms of the experiment you performed?  
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