

## Summarize

Have students share their results. Ask students to comment on the relative usefulness of graphs and equations.

- *In what circumstances would an estimate be good enough? When would you need an exact answer?*

In particular, it will be helpful to have students explain how they can answer *less than* questions by reasoning from results of related equations.

### Materials

- Student notebooks

## ACE Assignment Guide for Problem 2.1



**Core** 1–6, 13–22

**Other** 23–28 and unassigned choices from previous problems

**Adapted** For suggestions about adapting Exercise 1 and other ACE exercises, see the *CMP Special Needs Handbook*.

**Connecting to Prior Units** 13–28: *Moving Straight Ahead*

5. The per-day charge must be less than about \$12 because they would want their charge graph to start at (0, 995) and pass through the point (500, 7,000), giving a slope of about 12.

**B.** Super Locks:  $c = 3,975 + 6d$

Fail Safe:  $c = 995 + 17.95d$

**C.** To answer Question A, part (1): Solve  $3,975 + 6d = 995 + 17.95d$ ;  $d = 249.3$ .

Calculate  $3,975 + 6(249.3) = 5,470.80$

To answer Question A, part (4): Calculate  $995 + 17.95(365) = c$ ;  $c = \$7,546.75$ .

## Answers to Problem 2.1

**A.** Estimates based on the graphs

1. About 250 days and about \$5,500
2. Any contract length greater than about 250 days
3. Any contract length less than about 340 days
4. About \$7,500