

## **Activity 4: Shortcuts—Multiples of 10**

Use your calculator to solve each set of problems below. Then describe the pattern you see and write a method to explain what is happening.

- 1. Set 1
  - **a.**  $36 \times 0.1 =$
  - **b.**  $3.6 \times 0.1 =$
  - **c.**  $360 \times 0.1 =$
  - **d.**  $.36 \times 0.1 =$
  - e. Now choose three numbers and multiply each by 0.1 on the calculator. What do you notice when you multiply by 0.1?

## 2. Set 2

- **a.**  $78 \times 0.01 =$
- **b.**  $780 \times 0.01 =$
- c.  $7.8 \times 0.01 =$
- **d.**  $.78 \times 0.01 =$
- **e.** Now choose three numbers and multiply each number by 0.01 on the calculator. What do you notice when you multiply by 0.01?

3. Set 3

**a.** 
$$0.94 \times 10 =$$

**b.** 
$$0.094 \times 10 =$$

**c.** 
$$9.4 \times 10 =$$

**d.** 
$$94.0 \times 10 =$$

e. Now choose three numbers and multiply each number by 10 on the calculator. What do you notice when you multiply by 10?

4. Set 4

**a.** 
$$67 \times 100 =$$

**b.** 
$$6.7 \times 100 =$$

**c.** 
$$0.067 \times 100 =$$

**d.** 
$$0.67 \times 100 =$$

e. Now choose three numbers and multiply each by 100 on the calculator. What do you notice when you multiply by 100?

5. Describe the method you use for multiplying by powers of 10. Use complete sentences.