Growing Patterns

1. Look at the pattern. Describe the changes from the first line through the fourth line in the pattern.

Patterns

$$9 \times 9 = 81$$

$$99 \times 99 = 9,801$$

$$999 \times 999 = 998,001$$

$$9,999 \times 9,999 = 99,980,001$$

- **2.** Write the next two lines in the number pattern.
- **3.** Write the tenth line in the number pattern.
- **4.** Look at the pattern. Describe the changes from the first line through the fourth line in the pattern.

$$1 \times 1 = 1$$

$$11 \times 11 = 121$$

$$111 \times 111 = 12,321$$

$$1,111 \times 1,111 = 1,234,321$$

5. Write the next three lines in the number pattern.