Exponents and Place Value

Write each expression in exponential form.

1. $5 \times 5 \times 5 \times 5 \times 5 \times 5$ _____

2. $2 \times 2 \times 2 \times 2 \times 2 \times 2 \times 2$ _____

3. $3 \times 3 \times 3$ _____

4. 9 _____

Write each number in expanded form using exponents.

5. 53,806 _____

6. 527,519 _____

Evaluate.

7. 6^2 _____

8. 5^3 _____

9. 3^6 _____

10. 2^8 _____

11. Reasoning Zach invested $50 and was able to triple his money in two years. Kayla also began with $50 in investments, and was able to cube her money in two years. Who had more money after two years? Explain.

_____

_____

_____

12. Writing to Explain In 1968, the estimated population of the world was 3,559,028,982 people. When this number is written in expanded form using exponents, one power of 10 would not be represented. Which power of 10? Why?

_____

_____

13. Number Sense Which is **NOT** equal to 1?

    A 10^0

    B 4^1

    C 1×10^0

    D 1^4