Mixed Practice: Powers and Exponents

Name: _____ Date: _____

Section A: Write in Exponential Form

Write each expression using exponents.

1) $5 \times 5 \times 5 =$ _____

2) $2 \times 2 \times 2 \times 2 \times 2 =$ _____

3) $7 \times 7 =$ _____

4) $10 \times 10 \times 10 \times 10 =$ _____

5) $3 \times 3 \times 3 \times 3 \times 3 \times 3 =$ _____

6) $9 \times 9 \times 9 =$ _____

Section B: Write in Expanded Form

Write each exponential expression as repeated multiplication.

7) $4^3 =$ _____

8) $6^2 =$ _____

9) $2^5 =$ _____

10) $8^4 =$ _____

11) $5^2 =$ _____

12) $3^4 =$ _____

Section C: Evaluate the Powers

Calculate the value of each expression.

13) $2^3 =$ _____

14) $5^2 =$ _____

15) $10^3 =$ _____

16) $4^2 =$ _____

17) $3^3 =$ _____

18) $6^2 =$ _____

19) $2^6 =$ _____

20) $10^2 =$ _____

Section D: Challenge Questions

21) Which is larger: 2^5 or 5^2? _____

22) What is the base in the expression 7^4? _____

23) What is the exponent in the expression 9^3? _____

24) Write 64 as a power of 2: _____

25) Write 81 as a power of 3: _____