Evaluating Powers of Whole Numbers

Name: _____ Date: _____

Remember: A power shows repeated multiplication. For example: $3^4 = 3 \times 3 \times 3 \times 3 = 81$

Section A: Calculate each power

1. 2^3 = _____

2. 5^2 = _____

3. 3^3 = _____

4. 4^2 = _____

5. 10^2 = _____

6. 2^4 = _____

7. 6^2 = _____

8. 3^4 = _____

9. 2^5 = _____

10. 7^2 = _____

Section B: Write as repeated multiplication, then calculate

11. 4^3 = _____ × _____ × _____ = _____

12. 5^3 = _____ × _____ × _____ = _____

13. 2^4 = _____ × _____ × _____ × _____ = _____

14. 3^5 = _____ × _____ × _____ × _____ × _____ = _____

Section C: Write in exponential form (using powers)

15. 9×9 = _____

16. 8×8 = _____

17. $6 \times 6 \times 6$ = _____

18. $10 \times 10 \times 10$ = _____

19. $4 \times 4 \times 4 \times 4$ = _____

20. $2 \times 2 \times 2 \times 2 \times 2$ = _____

Section D: Challenge Questions

21. Which is greater: 2^5 or 5^2? _____

22. What is the value of 10^3? _____

23. If $3^4 = 81$, what is 3^3? _____

24. Calculate: $2^3 + 3^2 =$ _____