

NAME _____

Algebra Test Review – Math 6

EXPONENTS:

Write each product using an exponent.

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

2. $12 \times 12 \times 12$

3. $9 \times 9 \times 9 \times 9$

4. 7×7

Write each power as a product of the same factor. Then find the value. **SHOW ALL STEPS!**

5. 9^4

6. 2^5

7. 4^0

8. 6^1

9. 0.5^3

ORDER OF OPERATIONS:

Find the value of each expression. **SHOW ALL STEPS!**

10. $22 - 17 + 8$

11. $6 \cdot (9 + 2) - 5$

12. $55 \div (5 + 6) + 7 \cdot (2 + 14)$

13. $26 + 6^2 \div 4$

14. $12 \div 4 + (5^2 - 6)$

15. $(8 - 6)^4 + 10 \cdot 9$

ALGEBRAIC EXPRESSIONS:

Evaluate each expression for the given values of the variables. **SHOW ALL STEPS!**

16. $24 + a$ if $a = 6$

17. $2b - 10$ if $b = 13$

18. $c^2 + c$ if $c = 8$

19. $5d^3$ if $d = 4$

Evaluate each expression if $w = 6$, $x = 8$, and $y = 12$. **SHOW ALL STEPS!**

20. $2w + 4x$

21. $3y^2 + 5w$

22. $y \div 3 + wx$

Name: _____

Period: _____

Date: _____

Study Guide for Pre-Algebra Unit

Write the base and exponent for the problem.

7^3

1) Base: _____

2) Exponent: _____

Write each power as a product of the same factor.

3) $5^2 =$ _____

4) $11^6 =$ _____

Write each expression in exponential form.

5) four cubed _____

6) $3 \times 3 \times 3 \times 3$ _____

7) eight to the sixth power _____

Find each value.

8) $7^2 =$ _____

9) $5^0 =$ _____

Evaluate the problems.

10) $15 \div 5 \cdot 2 =$ _____

11) $6 \times (7 + 3) \div 2 + 3^2 =$ _____

12) $(18 \div 6) + 7 + (15 - 10) \cdot 2^3 =$ _____

Evaluate each expression if $m = 5$.

13) $m - 3 =$ _____

14) $10m =$ _____

15) $m^2 - 5 \cdot 4 =$ _____

Complete the chart below.

Expression	Coefficients	Variables	Constants
$8h + 9 + 3z$			
$42 \cdot 6r + 2r - d$			
$t^2 \cdot t + 7t + 5$			
$12 + 2p \div 2$			
$6k + 4$			