

Name _____

Chapter 1 Review

Date _____

Math 8

Expand and evaluate each expression.

1. $(-\frac{1}{2})^5$

2. 7^4

3. $(1.5)^2$

4. $(\frac{1}{6})^3$

Evaluate the expression.

5. $2 \cdot 10^2 + 7 \cdot 10^0 + 5 \cdot 10^{-1} + 2 \cdot 10^{-2}$

6. $3 \cdot 10^3 + 5 \cdot 10^2 + 4 \cdot 10^{-1} + 1 \cdot 10^{-2}$

Simplify each expression.

7. $9x^8y^6 \cdot 7x^{-2}y$

8. $16m^{10}y^9 \cdot 2m^{-4}y^{-6}$

9. $\frac{30x^{11}y^{-4}}{5x^{-2}y^6}$

10. $\frac{28x^{12}y^{-5}}{4x^{-6}y^9}$

Solve.

11. $x^2 = 225$

12. $x^2 = \frac{16}{25}$

13. $x^3 = 1000$

14. $x^3 = \frac{343}{512}$

Evaluate.

15. -5^3

16. 5^{-2}

17. $(-4)^3$

18. Order #15-17 from least to greatest.

19. The area of a square is 22,500 square meters. What is the perimeter of the square?

20. The area of a round mat is 81π square inches. What is the diameter of the mat?

21. The side length of a cube is 4m millimeters. If the cube has a volume of 13,824 cubic millimeters, find the value of m.