Algebra 1
Review Ch. 7
Quiz 7.3-7.4 today
MCT 7.1-7.4 is Friday
whiteboards

$$6^{(x-2)} = 1296$$

$$6^{x-2} = 6^4$$

$$x - 2 = 4$$

$$x = 6$$

7-4 Scientific Notation

Express each number in scientific notation.

39. 2,300,000

40. 0.0000543

Express each number in standard form.

20. 2.9×10^{-5}

21. 9.1×10^{6}

Evaluate each product or quotient. Express the results in scientific notation.

22. $(2.5 \times 10^3)(3 \times 10^4)$

23. $\dfrac{8.8 \times 10^2}{4 \times 10^{-4}}$

33. $256^{\frac{3}{4}}$ **34.** $32^{\frac{2}{5}}$

Solve each equation.

37. $6^x = 7776$　　　　　　　　**38.** $4^{4x-1} = 32$

7-1 Multiplication Properties of Exponents
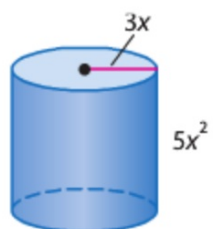
Simplify each expression.

11. $x \cdot x^3 \cdot x^5$

12. $(2xy)\left(-3x^2y^5\right)$

17. $(2x^2)^3(x^3)^3$ **18.** $\frac{1}{2}(2x^3)^3$

19. GEOMETRY Use the formula $V = \pi r^2 h$ to find the volume of the cylinder.

3x

$5x^2$

7-2 Division Properties of Exponents

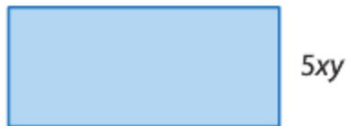Simplify each expression. Assume that no denominator equals zero.

20. $\dfrac{(3x)^0}{2a}$

21. $\left(\dfrac{3xy^3}{2z}\right)^3$

26. $\left(\dfrac{6xy^{11}z^9}{48x^6yz^{-7}}\right)^0$

27. $\left(\dfrac{12}{2}\right)\left(\dfrac{x}{y^5}\right)\left(\dfrac{y^4}{x^4}\right)$

28. GEOMETRY The area of a rectangle is $25x^2y^4$ square feet. The width of the rectangle is $5xy$ feet. What is the length of the rectangle?

$5xy$

7-3 Rational Exponents

Simplify.

29. $\sqrt[3]{343}$

30. $\sqrt[6]{729}$