

Lesson 5.1 Worksheet

Name: _____

Evaluate the expression. Write your answer using exponents and as a simplified fraction. NO DECIMALS.

1.) $3^3 \cdot 3^2$

2.) $(4^{-2})^3$

3.) $(-5)(-5)^4$

4.) $\frac{5^2}{5^5}$

5.) $\left(\frac{2}{7}\right)^{-3}$

6.) $\frac{3^4}{3^{-2}}$

7.) $\left(\frac{2}{3}\right)^{-5} \left(\frac{2}{3}\right)^4$

8.) $6^3 \cdot 6^0 \cdot 6^{-5}$

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

Simplify the expression. Evaluate all integers to powers. NO DECIMALS.

10.) $\frac{w^{-2}}{w^6}$

11.) $(p^3q^2)^{-1}$

12.) $(w^3x^{-2})(w^6x^{-1})$

13.) $(5x^{-2}t^4)^{-3}$

14.) $\frac{x^{-1}y^2}{x^2y^{-1}}$

15.) $\frac{4a^4b^5}{24a^4b^{-5}}$

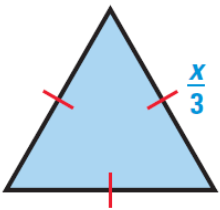
16.) $\frac{2a^3b^{-4}}{3a^5b^{-2}}$

17.) $\frac{y^{11}}{4z^3} \cdot \frac{8z^7}{y^7}$

18.) $\frac{x^2y^{-3}}{3y^2} \cdot \frac{y^2}{x^{-4}}$

Write an expression for the figure's area or volume in terms of x .

19.) $A = \frac{\sqrt{3}}{4}s^2$



20.) $V = lwh$

