

**I. Simplify each expression. MUST SHOW WORK TO RECEIVE CREDIT!**

1.)  $5(-6)^0$

2.)  $8^{-4}$

3.)  $\frac{3^0}{2^{-5}}$

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

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

6.)  $\frac{8^{-2}}{4^0}$

7.)  $-6 \cdot 3^{-4}$

8.)  $(-7)^{-2}$

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

10.)  $(-3)^{-3} \cdot 2^{-1}$

11.)  $3^2 xy^{-3}$

12.)  $\frac{b^2}{4^{-2} a^{-4}}$

13.)  $\frac{2}{3^{-2} r^{-6} s^2}$

14.)  $5x^{-4} y^0$

15.)  $\frac{(-6)^{-2} a^5 b^{-3}}{2^{-1}}$

**II. For the following: MUST SHOW WORK TO RECEIVE CREDIT!**

a.) Write each expression only having positive exponents.

b.) Evaluate each expression for  $a = -2$  and  $b = 6$ .

16.)  $(-a)^{-4}$

17.)  $-ab^{-3}$

18.)  $2a^{-1} b^{-2}$

19.)  $(3ab)^{-2}$

20.) Suppose your allowance is represented by the expression  $2.56 \cdot 2^t$  where  $t$  = the number of weeks.a.) How much allowance were you making before the first week ended? \_\_\_\_\_

b.) How much will your allowance be four weeks from now? \_\_\_\_\_

c.) How much was your allowance three weeks ago? \_\_\_\_\_

d.) From a parent's point of view, is the expression above a good plan? Explain your answer.