Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Negative and Zero exponents worksheet

1) $\frac{8^{2}}{8^{4}}$ (2) $\frac{x^{6}}{x^{15}}$

3) $\frac{7^{-3}}{7^{-2}}$ (4) $\frac{y^{-9}}{y^{10}}$

5) $\frac{x^{0}y^{5}}{xy^{7}}$ (6) $\frac{a^{-1}b^{8}}{a^{5}b^{7}}$

7) $\frac{14c^{10}d^{-4}}{21c^{6}d^{-3}}$ (8) $\frac{8g^{0}h}{30g^{-9}h^{2}}$

9) $\frac{5x^{4}}{10y^{-2}}∙\frac{y^{7}x}{x^{-1}y}$ (10) $\frac{g^{9}h^{5}}{6gh^{12}}∙\frac{18h^{3}}{g^{8}}$

11) $\frac{4a^{10}b^{7}}{12a^{-6}}∙\frac{9a^{-5}b^{4}}{20a^{11}b^{-8}}$ (12) $\frac{-g^{8}h}{6g^{-8}}∙\frac{9g^{15}h^{9}}{-h^{11}}$

13) Rewrite the following exponential pattern with positive exponents:

 $5^{-4}, 5^{-3}, 5^{-2}, 5^{-1}, 5^{0}, 5^{1}, 5^{2}, 5^{3}, 5^{4}$

14) Evaluate each term in the pattern from problem #13.

15) Fill in the Blanks: As the numbers increase, you \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the previous term by 5. As the numbers decrease, you \_\_\_\_\_\_\_\_\_\_\_\_\_ the previous term by 5.