

Name _____

8-4A Lesson Master

Questions on SPUR Objectives

See pages 521–523 for objectives.

SKILLS Objectives A and B

In 1 and 2, rewrite without negative exponents.

1. $-8.1w^{-4}z^{-2}$

2. $(17p^{-5})(6q)^{-1}$

In 3 and 4, rewrite: a. without fractions; b. without negative exponents.

3. $\frac{a^6b^{-4}}{a^9b^2}$

4. $\frac{24m^{-5}n^7}{6m^{-8}n}$

a. _____

a. _____

b. _____

b. _____

In 5–10, give the answer as a simple fraction.

5. $\left(\frac{8}{7}\right)^{-1}$ _____

6. $\left(\frac{3}{4}\right)^{-3}$ _____

7. $\left(\frac{1}{12}\right)^{-2}$ _____

8. If $f(x) = x^{-2}$, what is $f(-5)$? _____

9. Order the following numbers from least to greatest.

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

10. a. Write the expression $\frac{a^3}{a^7}$ in expanded form. _____

b. Simplify the expression. _____

PROPERTIES Objective G

11. Use the Quotient of Powers Property with the Negative Exponent Property to find the value of x if $\frac{k^x}{k^7} = \frac{1}{k^3}$. _____

12. Use the Power of a Power Property with the Negative Exponent Property to find the value of x if $\left(\frac{1}{a^3}\right)^x = a^6$. _____