

LAWS OF EXPONENTS

Name _____

Date _____

INSTRUCTIONS: Answer ALL questions in the spaces provided. SHOW ALL WORKING.

1. Evaluate: $(-3)^2 \times (-3)^4$ $= -3$ $= -3$	2. Evaluate $(2^3)^6$ $= 2$ $= 2$ $=$
3. Simplify: $(3a^2b^3)(5ab^2)$ $= a \quad b$ $= a \quad b$	4. Simplify: $5p \times 2p^3 \times 3$ $= p$ $= p$
5. Simplify: $54p^3 \div 9p^{-4}$ $= p$ $= p$	6. Simplify: $\frac{24a^3b^7}{3a^2b}$ $= a \quad b$ $= a \quad b$
7. Simplify: $(3x^4y^2)^4$ $= x \quad y$ $= x \quad y$	8. Simplify: $\frac{9a^2b}{12ab}$ $= \text{----} a \quad b$ $= \text{----} a$
9. Simplify: $\left(\frac{3x^2y}{z}\right)^3$ $= \frac{x \quad y}{z}$ $= \frac{x \quad y}{z}$	10. Simplify: $\frac{8a^2 \times a^4}{2a}$ $= \frac{a}{2a}$ $= \frac{a}{2a}$ $= \div a$ $= a$