

DAY 1 – Exponent Laws

1. Write each as a single power and then evaluate if possible.

a. $14^7 \times 14^8 \div 14^{13}$	b. $5^{35} \div (5^{26} \times 5^7)$	c. $\left(\frac{4^9}{4^6}\right)^3$
d. $\frac{16^{15}}{16^{12} \times 16^2}$	e. $2^6 \times 2^9 \div 2^{14}$	f. $3^{72} \times 3^2 \div 3^{72}$
g. $\left(\frac{6^{14}}{6^{13}}\right)^7 \div 6^5$	h. $\left(\frac{2^{14}}{2^{12}}\right)^3 \times \left(\frac{2^9}{2^8}\right)^2$	i. $(x^4 \div x^2 \times x^3)^2$

2. State each as a power with a positive exponent.

a. 3^{-2}	b. 5^{-3}	c. $\left(\frac{1}{2}\right)^{-8}$
-------------	-------------	------------------------------------

3. State each as a power with a negative exponent.

a. $\frac{1}{100}$	b. $\frac{1}{2^9}$	c. 25
--------------------	--------------------	-------

4. Write each as a single power and then evaluate if possible.

a. $3^6 \div 3^9$	b. $(2^{-2})^3$	c. $(13^4 \div 13^{10})^0$
d. $\frac{5^8}{5^6 \times 5^4}$	e. 10^{-1}	f. $3^{-2} + 9^0$
g. $4^0(6+9)$	h. $8^2 \times 4^{-3}$	i. $(x^4 \div x^0 \times x^{-3})^{-2}$

More Practice:

1. $8^{-3} \times 8^{-6}$

2. $5^7 \div 5^{10}$

3. $10^{-7} \times 10^7$

4. $(4x^2)(-2x^3)$

5. $(3a^{-2})^{-1}$

6. $\left(\frac{1}{3^{-2}}\right)^2$

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

8. $(10x^5) \div (5x^2)$

9. $(2y^3)^2(y^{-3})$

10. $(-5x^6)^0$