

Simplify using the laws of exponents

Name _____

Date _____

Write each answer as a single power, then evaluate where possible.

Problem	Answer	Problem	Answer
1. $2^3 \times 2^5$		5. $(3a)^2$	
2. $7^9 \div 7^7$		6. $10^4 \times 10^{-6}$	
3. $(4^2)^3$		7. $(2^3)^0$	
4. $x^5 \cdot x^{-2}$		8. $y^8 \div y^8$	

Answer key — Simplify using the laws of exponents

#	Problem	Answer
1	$2^3 \times 2^5$	$2^8 = 256$
2	$7^9 \div 7^7$	$7^2 = 49$
3	$(4^2)^3$	$4^6 = 4096$
4	$x^5 \cdot x^{-2}$	x^3
5	$(3a)^2$	$9a^2$
6	$10^4 \times 10^{-6}$	$10^{-2} = 0.01$
7	$(2^3)^0$	1
8	$y^8 \div y^8$	$y^0 = 1$