

Name _____



Power Puzzle

Directions: Fill in each blank by finding the missing exponent, base, or simplified expression. Use the correct law of exponents for each equation.

1) $2^3 \times 2^{\square} = 2^7$	2) $9^8 \div 9^{\square} = 9^3$
3) $(5^2)^{\square} = 5^8$	4) $(\square \times 4)^3 = 6^3 \times 4^3$
5) $(18 \div \square)^2 = 18^2 \div 3^2$	6) $7^4 \times 7^2 = 7^{\square}$
7) $(8^3)^2 = 8^{\square}$	8) $10^9 \div 10^5 = 10^{\square}$
9) $(3 \times 9)^2 = \square^2 \times 9^2$	10) $4^6 \div 4^2 = \square$
11) $(11^2)^3 = \square$	12) $12^2 \times 12^4 = \square$