

MasterMath

Name _____
Date _____

Multiplying and Dividing with Exponents

1. Please simplify these expressions

Expression	Simplified
$x^2 * x^5$	x^7
$z^9 \div z^6$	z^3
$(b^3)^4$	b^{12}
$6^8 \div 6^7$	6
$(15x^2y^3) \div (5xy^3)$	3x
$(z^2)^3$	z^6
$(2x^2)^4$	$16x^8$
$(3x^2)^2 \div 3x$	$3x^3$

2. $4^m / 4^5 = 4^3$; what does m equal?

15

3. $(x^5)^2 / x^8 =$

x^2

4. Satellites have taken photographs of the earth from altitudes of 2^{19} meters up to a height of about twice that. Express the higher altitude as an exponent.



2^{20}

5. This shape represents 3^3 . What would 3^2 look like?



It would be a wall with
9 blocks.