

Name: \_\_\_\_\_

Date: \_\_\_\_\_

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**EXPONENT LAWS AND PRIME FACTORIZATION**  
**In-Class Assignment**

- [12]** 1. Simplify the given expression and if the result has a negative exponent change it so it has only positive exponents.

$3x^5x^{-4}y^{-3}z^2z$	$\frac{2^{-1}a^4b^3}{(a^2)^4}$
$\left(\frac{4x^7}{5y}\right)^{-2}$	$2^5xx^{-4}\frac{y}{y^{-8}z}$
$\left(\frac{x}{x^{-6}xyz^5}\right)^0$	$\frac{3}{4}x^{-3}x^4yz^{-2}z$

- [16] 2. Using prime factorization, determine whether the given number is a perfect square number or perfect cube number. Clearly state your conclusion.

294	576
287 496	1 000 000

61 347

6 859

6 500

97 336