

ACMAT100 Spring 2023
Professor Manguba-Glover
Classwork 3

Name: _____

Complete as many of the following problems as you can with your table. Turn this in at the end of class. You do not have to go in order. If you finish early, you may leave early.

1. Evaluate each exponential expression.

(a) $2^2 \cdot 2^5$

(b) $7^2 \cdot 7^{-3}$

(c) $\frac{3^4}{3^7}$

2. Simplify each exponential expression.

(a) $x^{-3}y$

(b) $x^3 \cdot x^2$

(c) $x^{-4}y$

(d) $\frac{x^{36}}{x^{29}}$

(e) $(3x)^3$

(f) $(8x^3)^2$

(g) $\left(-\frac{2}{x}\right)^2$

3. Simplify each exponential expression.

(a) $(-6x^3y)(-2x^5y^2)$

(b) $\left(\frac{x^{-2}y^8}{x^{-4}y^{12}}\right)^{-2}$

(c) $\left(\frac{-10a^{13}b^6}{30a^{18}b^{-3}}\right)^2$

(d) $\left(\frac{30x^{26}y^{45}}{41x^{-32}y}\right)^0$