ACMAT100 Fall 2023
Professor Manguba-Glover
Homework 10 (1.5-1.6)   Name: _____

Show all work and simplify all answers before circling/boxing them. If you do the problem incorrectly, or don't show sufficient work, you will be asked to rewrite the problem for credit.

Final due date: the day of the Unit 3 Exam.

Simplify the following expressions. Final answers should have no negative exponents.

(1) $(4x^4y^7)(8x^3y^{-5})$

(2) $\dfrac{-10^{-2}x^3y^0}{x^{-6}}$

(3) $\dfrac{120x^3y^8}{-20x^7y^{-13}}$

(4) $\dfrac{15a^{-4}b^3c^8}{3a^5b^{-2}c^4}$

(5) $(-3x^{-3})^2$

(6) $\left(\dfrac{7b}{3}\right)^{-2}$

(7) $(2x^5y^{-5})^2$

(8) $(6x^{-4}p^3)^{-2}$

(9) $(-5g^{-2}h^3)^{-3}$

(10) $\left(\dfrac{16a^8b^8}{8a^9b^6}\right)^3$

(11) $\left(\dfrac{9x^{-4}y^4z^3}{-3x^{-6}y^{-3}z}\right)^{-2}$

(12) $\dfrac{x^{3w+6}}{x^{w-5}}$

(13) $x^{-m}(x^{4m+3})$