Name: _____

MATH 101
Spring 2024
HW 7: Due 02/14

"Language is the foundation of civilization. It is the glue that holds the people together, it is the first weapon drawn in a conflict."
— *Louise Banks, Arrival*

Problem 1. (10pts) Express the following decimal numbers in scientific notation:

(a) 0.000000623

(b) 150000

(c) 8

(d) 0.1

Problem 2. (10pts) Express the following numbers in scientific notation as decimal numbers:

(a) $6.7 \cdot 10^4$

(b) $3.3 \cdot 10^{-6}$

(c) $7.89 \cdot 10^0$

(d) $1.113 \cdot 10^8$

Problem 3. (10pts) Showing all your work and expressing the result in scientific notation with three significant figures, convert the following:

(a) 16,000,000 centigrams to megagrams

(b) 260 oz to stones [1 oz = 28.35 g, 1 stone = 6.35 kg]

(c) 2.6 gallons to milliliters [1 gal = 3.785 L]

(d) $0.02 \cdot 10^9$ ft^3 to mi^3 [5,280 ft = 1 mi.]

(e) 16.5 meters per square second to feet per square minute [0.3048 m = 1 ft]