Name: _____
MATH 101
Spring 2022
HW 4: Due 02/17

"Not everyone can become a great artist, but a great artist can come from anywhere."

–Anton Ego, Coco

Problem 1. (10pt) Write the following numbers in scientific notation:

(a) 126

(b) 5

(c) 0.0000034

(d) 163000000

Problem 2. (10pt) Write the following numbers in decimal notation:

(a) $1.7 \cdot 10^3$

(b) $9.3 \cdot 10^0$

(c) $1.32 \cdot 10^8$

(d) $4.8 \cdot 10^{-5}$

Problem 3. (10pt) Suppose a course grade consists of the following weights:

Homework	40%
Quizzes	10%
Exam 1	20%
Exam 2	20%
Project	10%

Suppose a student had a 81% homework average, 70% quiz average, a 85% on exam 1, a 74% on exam 2, and a 93% on the project. Compute the student's course average.

Problem 4. (10pt) Suppose a GPA consists of the following weights:

A	4.0	C+	2.3
A−	3.7	C	2.0
B+	3.3	C−	1.7
B	3.0	D	1.0
B−	2.7	F	0.0

Suppose a student had the following grades on their courses: Compute this student's GPA.

Course	Credits	Grade
Calculus II	4	B+
Sophomore Seminar	1	A
Chemistry II	4	B-
Women in Music	3	B+
German Philosophy Pre-1950	3	C+
American Poets	3	D

Problem 5. (10pt) Compute the following:

(a) $(4 - i) - (6 - 10i)$

(b) $(1 - 3i)(2 + 4i)$

(c) $(2i)^3$

(d) $\dfrac{5 + i}{1 - 2i}$