

Homework Assignment #1

Your Name
Course Name

May 7, 2025

Problem 1: Basic Equations

Solve the following quadratic equation:

$$ax^2 + bx + c = 0 \quad (1)$$

The solution is given by:

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a} \quad (2)$$

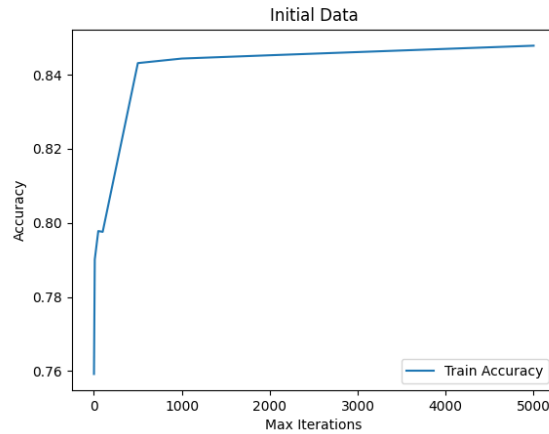


Figure 1: A descriptive caption for your image

Problem 2: Matrix Operations

Given matrices A and B :

$$A = \begin{pmatrix} 1 & 2 \\ 3 & 4 \end{pmatrix}, \quad B = \begin{pmatrix} 5 & 6 \\ 7 & 8 \end{pmatrix}$$

The product AB is:

$$AB = \begin{pmatrix} 1 \times 5 + 2 \times 7 & 1 \times 6 + 2 \times 8 \\ 3 \times 5 + 4 \times 7 & 3 \times 6 + 4 \times 8 \end{pmatrix} = \begin{pmatrix} 19 & 22 \\ 43 & 50 \end{pmatrix}$$

Problem 3: Figure Insertion

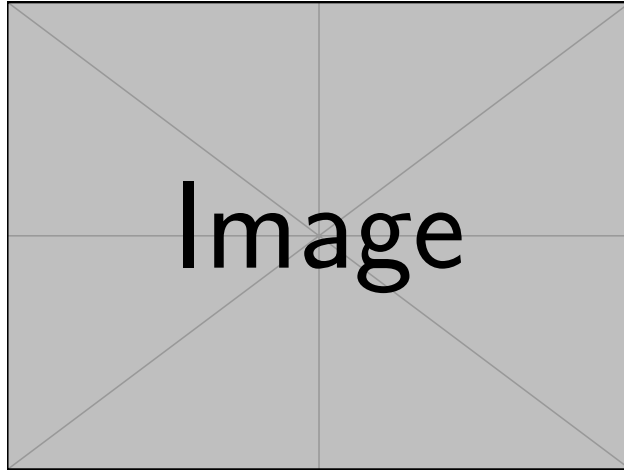


Figure 2: Sample figure caption

See Figure 2 for an example.

Problem 4: Table Creation

Table 1: Sample Data Table

Item	Quantity	Price	Total
Pencils	10	\$0.50	\$5.00
Notebooks	3	\$2.00	\$6.00
Pens	5	\$1.50	\$7.50

Data is shown in Table 1.