Samir Varma

4/18/2025

Programming Methodology 1

Professor Jorge Ortiz

Lab 11

Exercise 1

```
samirvarma@Samirs-MacBook-Pro-2 ex1 % ./matrix_test
m1:
[1, 2]
[3, 4]

m2:
[2, 0]
[1, 3]

m1 + m2:
[3, 2]
[4, 7]

m1 * m2:
[4, 6]
[10, 12]

det(m1) = -2
inv(m1):
[-2, 1]
[1.5, -0.5]

Solution: x = 1, y = 2
m1[0][0] = 1
2 * m1:
[2, 4]
[6, 8]

3x3 matrix m3:
[1, 2, 3]
[4, 5, 6]
[7, 8, 9]

3x2 matrix m4:
[1, 2]
[3, 4]
[5, 6]
```

```
m1 * m2:
[4, 6]
[10, 12]

det(m1) = -2
inv(m1):
[-2, 1]
[1.5, -0.5]

Solution: x = 1, y = 2
m1[0][0] = 1
2 * m1:
[2, 4]
[6, 8]

3x3 matrix m3:
[1, 2, 3]
[4, 5, 6]
[7, 8, 9]

3x2 matrix m4:
[1, 2]
[3, 4]
[5, 6]

2x4 matrix m5:
[1, 2, 3, 4]
[5, 6, 7, 8]

m4 * m5 (3x4 result):
[11, 14, 17, 20]
[23, 30, 37, 44]
[35, 46, 57, 68]

samirvarma@Samirs-MacBook-Pro-2 ex1 %
```