Algorithm 1 The addition function

```
1: function ADD(M_1, M_2)
2:     m = M_1.rows
3:     n = M_1.cols
4:     A = new Matrix(m, n)
5:     for i = 1 to m do
6:         for j = 1 to n do
7:             A(i, j) = M_1(i, j) + M_2(i, j)
8:         end for
9:     end for
10:    return A
11: end function
```

Algorithm 2 The naive multiplication function

```
1: function MUL(M_1, M_2)
2:     m = M_1.rows
3:     n = M_1.cols
4:     p = M_2.cols
5:     A = new Matrix(m, p)
6:     for i = 1 to m do
7:         for j = 1 to p do
8:             A(i, j) = 0
9:             for k = 1 to n do
10:                A(i, j) = M_1(i, k) · M_2(k, j)
11:            end for
12:        end for
13:    end for
14:    return A
15: end function
```