

# Actividad 1.1

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1) Dadas las siguientes matrices:

$$A = \begin{bmatrix} 2 & 4 & -3 \\ 0 & -2 & 5 \\ 9 & 0 & 6 \end{bmatrix}$$

$$B = \begin{bmatrix} 8 & -7 & -3 \\ 6 & 9 & 5 \\ -2 & -5 & 1 \end{bmatrix}$$

```
using LinearAlgebra
A = [2 4 -3; 0 -2 5; 9 0 6];
B = [8 -7 -3; 6 9 5; -2 -5 1];
```

a)  $A + B$

```
display(A+B)
```

3×3 Matrix{Int64}:

```
10  -3  -6
 6   7  10
 7  -5   7
```

b)  $4A + 3B$

```
display((4*A)+(3*B))
```

3×3 Matrix{Int64}:

```
32  -5  -21
18  19   35
30 -15   27
```

c)  $A'$

```
display(transpose(A))
```

3×3 transpose(::Matrix{Int64}) with eltype Int64:

```
2  0  9
4 -2  0
-3 5  6
```

d)  $A^{-1}$

```
display(inv(A))
```

3×3 Matrix{Float64}:

```
-0.117647 -0.235294  0.137255
 0.441176  0.382353 -0.0980392
 0.176471  0.352941 -0.0392157
```

e) El determinante de  $A$  y  $A^{-1}$

```
display(det(A))
display(det(inv(A)))
```

102.0

0.00980392156862745

e) El determinante de  $B$  y  $B^{-1}$

```
display(det(B))
display(det(inv(B)))
```

420.0

0.002380952380952381

**2) Dadas las siguientes matrices:**

Calcula el producto matricial  $CD$