

Soluzioni degli esercizi sulle matrici

1. Soluzione

```
>> A=[5 0 -1; 2 3 7; 1 2 -4]
```

A =

```
5  0  -1
2  3   7
1  2  -4
```

```
>> A1=A(1:2,1:2)
```

A1 =

```
5  0
2  3
```

```
>> A2=A(2:3,1:2)
```

A2 =

```
2  3
1  2
```

```
>> A3=A(1:2,2:3)
```

A3 =

```
0  -1
3   7
```

```
>> A4=A(2:3,2:3)
```

A4 =

```
3  7
2 -4
```

```
>> A5(1,1)=A(1,1)
```

A5 =

```
5
```

```
>> A5(1,2)=A(1,3)
```

A5 =

5 -1

>> A5(2,1)=A(2,1)

A5 =

5 -1
2 0

>> A5(2,2)=A(2,3)

A5 =

5 -1
2 7

>> A6(1,1)=A(1,1)

A6 =

5

>> A6(1,2)=A(1,3)

A6 =

5 -1

>> A6(2,1)=A(3,1)

A6 =

5 -1
1 0

>> A6(2,2)=A(3,3)

A6 =

5 -1
1 -4

>> B=[A1;A2]

B =

5 0
2 3
2 3

```

1 2
>> C=[A1 A2]

```

C =

```

5 0 2 3
2 3 1 2

```

2. Soluzione

```

>> B=[3 0 -5
6 3 1
0 2 -1
2 -1 4]

```

B =

```

3 0 -5
6 3 1
0 2 -1
2 -1 4

```

```

>> B1(1,1)=B(1,1)

```

B1 =

```

3

```

```

>> B1(1,2)=B(1,3)

```

B1 =

```

3 -5

```

```

>> B1(2,1)=B(3,1)

```

B1 =

```

3 -5
0 0

```

```

>> B1(2,2)=B(3,3)

```

B1 =

```

3 -5
0 -1

```

```

>> B1(3,1)=B(4,1)

```

B1 =

3	-5
0	-1
2	0

>> B1(3,2)=B(4,3)

B1 =

3	-5
0	-1
2	4

>> B2(1,:)=B(1,1:3)

B2 =

3	0	-5
---	---	----

>> B2(2,:)=B(3,1:3)

B2 =

3	0	-5
0	2	-1

3. Soluzione

>> A=[1 2 3 4 5 6; 1 1 1 1 1 1;2 0 2 0 2 0;6 5 4 3 2 1]

A =

1	2	3	4	5	6
1	1	1	1	1	1
2	0	2	0	2	0
6	5	4	3	2	1

>> a=A(3,5);

>> r=A(3, :);

>> c=A(:,2);

>> sm=A(:,4:5);