```python
In [3]: #Linear Algebra Solving
        # Lets consider 3x+2y=12
        #               2x-y=1    find x and y
        #Method-1
```

```python
In [5]: import numpy as np
        a=np.array([[3,2],[2,-1]])
        b=np.array([12,1])
        print(a)
        print(b)
```

```
[[ 3  2]
 [ 2 -1]]
[12  1]
```

```python
In [6]: x=np.linalg.solve(a,b)
```

```python
In [7]: print("Solution= ",x)
```

```
Solution=  [2. 3.]
```

```python
In [8]: # Lets consider 3x+2y=12
        #               2x-y=1    find x and y
        #Method-2
```

```python
In [9]: a=np.array([[3,2],[2,-1]])
        b=np.array([12,1])
        print(a)
        print(b)
```

```
[[ 3  2]
 [ 2 -1]]
[12  1]
```

```python
In [10]: ai=np.linalg.inv(a)
```

```python
In [11]: print(ai,type(ai))
```

```
[[ 0.14285714  0.28571429]
 [ 0.28571429 -0.42857143]] <class 'numpy.ndarray'>
```

```python
In [12]: x=np.matmul(ai,b)
         print("Solution= ",x)
```

```
Solution=  [2. 3.]
```

```
In [13]: #OR
         x=np.dot(ai,b)
         print("Solution= ",x)
```

Solution= [2. 3.]

In [ ]: