```python
import numpy as np
ar1=np.array([[1,2],[5,6]])
ar2=np.array([[2,1],[6,5]])
print(ar1)
print(ar2)
print("Matrix Addition")
print(np.add(ar1,ar2))

print("Matrix Subtraction")
print(np.subtract(ar1,ar2))

print("Matrix multiplication")
print(np.multiply(ar1,ar2))

print("Matrix Division")
print(np.divide(ar1,ar2))

print("Matrix Multiplication")
print(np.dot(ar1,ar2))

print("Matrix Transpose")
print(ar1.transpose())

print("Sum of diagonal Matrix ")
print(np.trace(ar1))
```

<u>output</u>

"c:/Users/Angit/OneDrive/Desktop/python programming/matrix.py"

[[1 2]

 [5 6]]

[[2 1]

 [6 5]]

Matrix Addition

[[3 3]

 [11 11]]

Matrix Subtraction

[[-1 1]

 [-1 1]]

Matrix multiplication

[[2 2]

[30 30]]

Matrix Division

[[0.5   2.   ]

 [0.83333333 1.2   ]]

Matrix Multiplication

[[14 11]

 [46 35]]

Matrix Transpose

[[1 5]

 [2 6]]

Sum of diagonal Matrix

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