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In [10]: import numpy as np
A = np.random.randint(0, 5, (8, 3))
B = np.random.randint(0, 5, (2, 2))

C = (A[:, :, np.newaxis, np.newaxis] == B)
print (A)
print (B)

rows = np.where(C.any((3, 1)).all(1))[0]
print ('-'*50)
print (np.where(C))
print ('-'*50)
print (np.where(C.any((3))))
print ('-'*50)
print (np.where(C.any((2))))
print ('-'*50)
print (np.where(C.any((1))))
print ('-'*50)
print (np.where(C.any((3, 1))))
print ('-'*50)
print (np.where(C.any((3, 1)).all(1)))
print ('-'*50)
print (rows)
```

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[[0 1 4]
 [4 4 0]
 [1 0 4]
 [0 1 2]
 [2 1 1]
 [1 4 2]
 [3 2 3]
 [2 1 2]]
[[1 3]
 [1 4]]
```

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-----
(array([0, 0, 0, 1, 1, 2, 2, 2, 3, 3, 4, 4, 4, 4, 5, 5, 5, 6, 6, 7, 7],
      dtype=int64), array([1, 1, 2, 0, 1, 0, 0, 2, 1, 1, 1, 1, 2, 2, 0, 0, 1, 0, 2, 1, 1],
      dtype=int64), array([0, 1, 1, 1, 1, 0, 1, 1, 0, 1, 0, 1, 0, 1, 0, 1, 1, 0, 0, 0, 1],
      dtype=int64), array([0, 0, 1, 1, 1, 0, 0, 1, 0, 0, 0, 0, 0, 0, 0, 0, 1, 1, 1, 0, 0],
      dtype=int64))
```

```
-----
(array([0, 0, 0, 1, 1, 2, 2, 2, 3, 3, 4, 4, 4, 4, 5, 5, 5, 6, 6, 7, 7],
      dtype=int64), array([1, 1, 2, 0, 1, 0, 0, 2, 1, 1, 1, 1, 2, 2, 0, 0, 1, 0, 2, 1, 1],
      dtype=int64), array([0, 1, 1, 1, 1, 0, 1, 1, 0, 1, 0, 1, 0, 1, 0, 1, 1, 0, 0, 0, 1],
      dtype=int64))
```

```
-----
(array([0, 0, 1, 1, 2, 2, 3, 4, 4, 5, 5, 6, 6, 7], dtype=int64), array([1, 2, 0, 1, 0, 2, 1,
1, 2, 0, 1, 0, 2, 1], dtype=int64), array([0, 1, 1, 1, 0, 1, 0, 0, 0, 0, 1, 1, 1, 0], dtype=i
nt64))
```

```
-----
(array([0, 0, 0, 1, 2, 2, 2, 3, 3, 4, 4, 5, 5, 5, 6, 7, 7], dtype=int64), array([0, 1, 1, 1,
0, 1, 1, 0, 1, 0, 1, 0, 1, 1, 0, 0, 1], dtype=int64), array([0, 0, 1, 1, 0, 0, 1, 0, 0, 0,
0, 0, 1, 1, 0, 0], dtype=int64))
```

```
-----
(array([0, 0, 1, 2, 2, 3, 3, 4, 4, 5, 5, 6, 7, 7], dtype=int64), array([0, 1, 1, 0, 1, 0, 1,
0, 1, 0, 1, 0, 0, 1], dtype=int64))
```

```
-----
(array([0, 2, 3, 4, 5, 7], dtype=int64),)
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[0 2 3 4 5 7]
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In [ ]:
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In [ ]:
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