

Item Associations

1. Create some data (d): rows=baskets, columns=products, 1=product in basket
2. Get % baskets containing each product (pb)
3. Get expected % baskets containing each pair of products (ep)
4. Get actual % baskets containing each pair of products (ap)
5. Calc lift: ap/ep

```
nn=:4
] < d=: ( , ~nn) $ ?2#~ *~nn
```

```
| 1 1 0 1 |
| 0 1 1 0 |
| 0 1 1 1 |
| 0 1 1 0 |
```

```
] pb=: (+/ % #) "2 d
0.25 1 0.75 0.5
] < ep=: (pb * =/~ i.nn) >. pb * "0 1 pb
```

```
| 0.25 0.25 0.1875 0.125 |
| 0.25 1 0.75 0.5 |
| 0.1875 0.75 0.75 0.375 |
| 0.125 0.5 0.375 0.5 |
```

```
] < ap=: >{ (+/ % #) */"1 y {"1 _1 d}} each { ;~ i.nn
```

```
| 0.25 0.25 0 0.25 |
| 0.25 1 0.75 0.5 |
| 0 0.75 0.75 0.25 |
| 0.25 0.5 0.25 0.5 |
```

```
] < lift=: ap%ep
```

```
| 1 1 0 2 |
| 1 1 1 1 |
| 0 1 1 0.666667 |
| 2 1 0.666667 1 |
```