

Niklas Vest - A25

9-Felder Tafel mit $\text{COV}(X,Y)=0$ und $\neg\text{unabh\"angig}(X,Y)$.

```
In[ ]:= commonDistr = {{0, 1/4, 0, 1/4}, {1/4, 0, 1/4, 2/4}, {0, 1/4, 0, 1/4}, {1/4, 2/4, 1/4, 1}};
TableForm[commonDistr,
  TableHeadings -> {(* Y *) {"-1", "0", "1", "Σ"}, (* X *) {"0", "1", "2", "Σ"}}]
```

Out[]//TableForm=

| | 0 | 1 | 2 | Σ |
|----|---------------|---------------|---------------|---------------|
| -1 | 0 | $\frac{1}{4}$ | 0 | $\frac{1}{4}$ |
| 0 | $\frac{1}{4}$ | 0 | $\frac{1}{4}$ | $\frac{1}{2}$ |
| 1 | 0 | $\frac{1}{4}$ | 0 | $\frac{1}{4}$ |
| Σ | $\frac{1}{4}$ | $\frac{1}{2}$ | $\frac{1}{4}$ | 1 |

```
In[ ]:= xE = 1 x 2/4 + 2 x 1/4
yE = -1 x 1/4 + 1 x 1/4
xyE = -1 x 1/4 + 1 x 1/4
```

Out[]:= 1

Out[]:= 0

Out[]:= 0

```
In[ ]:= xyCov = xyE - xE x yE
```

Out[]:= 0