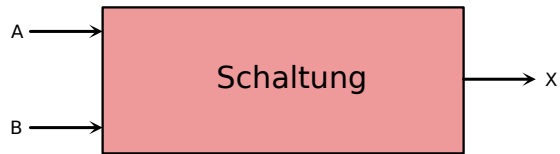


Digitale Schaltungen mit 2 Eingängen und einem Ausgang

Wie viele digitale Schaltungen mit zwei Eingängen und einem Ausgang sind möglich?



| A | B | X |
|---|---|---|
| 0 | 0 | — |
| 0 | 1 | — |
| 1 | 0 | — |
| 1 | 1 | — |

Es sind 4 verschiedene Zustände an den Eingängen möglich.

Wie viele mögliche Kombinationen sind bei 4 Plätzen möglich? $\rightarrow 2^4 = 16$

| Variante 1 | | |
|------------|---|---|
| A | B | X |
| 0 | 0 | — |
| 0 | 1 | — |
| 1 | 0 | — |
| 1 | 1 | — |

| Variante 2 | | |
|------------|---|---|
| A | B | X |
| 0 | 0 | 0 |
| 0 | 1 | 0 |
| 1 | 0 | 0 |
| 1 | 1 | 1 |

| Variante 3 | | |
|------------|---|---|
| A | B | X |
| 0 | 0 | 0 |
| 0 | 1 | 0 |
| 1 | 0 | 1 |
| 1 | 1 | 0 |

| Variante 4 | | |
|------------|---|---|
| A | B | X |
| 0 | 0 | 0 |
| 0 | 1 | 0 |
| 1 | 0 | 1 |
| 1 | 1 | 1 |

| Variante 5 | | |
|------------|---|---|
| A | B | X |
| 0 | 0 | 0 |
| 0 | 1 | 1 |
| 1 | 0 | 0 |
| 1 | 1 | 0 |

| Variante 6 | | |
|------------|---|---|
| A | B | X |
| 0 | 0 | 0 |
| 0 | 1 | 1 |
| 1 | 0 | 0 |
| 1 | 1 | 1 |

| Variante 7 | | |
|------------|---|---|
| A | B | X |
| 0 | 0 | 0 |
| 0 | 1 | 1 |
| 1 | 0 | 1 |
| 1 | 1 | 0 |

| Variante 8 | | |
|------------|---|---|
| A | B | X |
| 0 | 0 | 0 |
| 0 | 1 | 1 |
| 1 | 0 | 1 |
| 1 | 1 | 1 |

| Variante 9 | | |
|------------|---|---|
| A | B | X |
| 0 | 0 | 1 |
| 0 | 1 | 0 |
| 1 | 0 | 0 |
| 1 | 1 | 0 |

| Variante 10 | | |
|-------------|---|---|
| A | B | X |
| 0 | 0 | 1 |
| 0 | 1 | 0 |
| 1 | 0 | 0 |
| 1 | 1 | 1 |

| Variante 11 | | |
|-------------|---|---|
| A | B | X |
| 0 | 0 | 1 |
| 0 | 1 | 0 |
| 1 | 0 | 1 |
| 1 | 1 | 0 |

| Variante 12 | | |
|-------------|---|---|
| A | B | X |
| 0 | 0 | 1 |
| 0 | 1 | 0 |
| 1 | 0 | 1 |
| 1 | 1 | 1 |

| Variante 13 | | |
|-------------|---|---|
| A | B | X |
| 0 | 0 | 1 |
| 0 | 1 | 1 |
| 1 | 0 | 0 |
| 1 | 1 | 0 |

| Variante 14 | | |
|-------------|---|---|
| A | B | X |
| 0 | 0 | 1 |
| 0 | 1 | 1 |
| 1 | 0 | 0 |
| 1 | 1 | 1 |

| Variante 15 | | |
|-------------|---|---|
| A | B | X |
| 0 | 0 | 1 |
| 0 | 1 | 1 |
| 1 | 0 | 1 |
| 1 | 1 | 0 |

| Variante 16 | | |
|-------------|---|---|
| A | B | X |
| 0 | 0 | 1 |
| 0 | 1 | 1 |
| 1 | 0 | 1 |
| 1 | 1 | 1 |