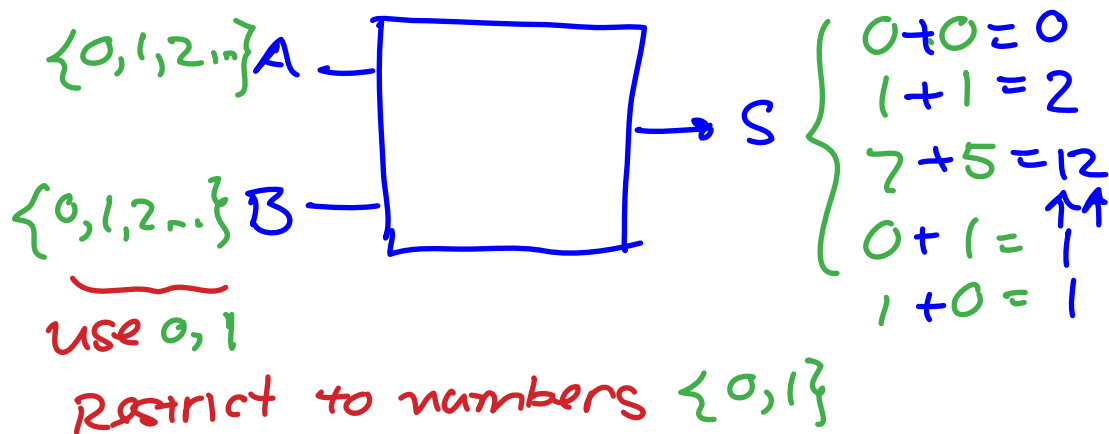


adders, main driving force behind Digital Logic



Truth Table

| A | B | S |
|---|---|---|
| 0 | 0 | 0 |
| 0 | 1 | 1 |
| 1 | 0 | 1 |
| 1 | 1 | 2 |

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binary numbers.

| dec | bin |
|-----|-----|
| 0 | 00 |
| 1 | 01 |
| 2 | 10 |
| 3 | 11 |

| A | B | S | C | S | A · B | A + B |
|---|---|---|---|---|-------|-------|
| 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 0 | 1 | 1 | 0 | 1 | 0 | 1 |
| 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| 1 | 1 | 2 | 1 | 0 | 1 | 1 |

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Binary AND OR
 $A \cdot B$ $A + B$

Digital Logic.

↑ same ↑

$\therefore C = A \cdot B$, by inspection

Humans $S = \bar{A} \cdot B + A \cdot \bar{B} \rightarrow$ "Boolean Algebra"

