# E6 on one page

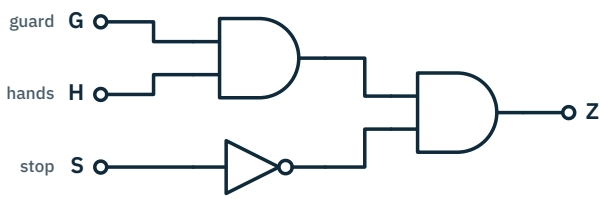


## GATES

| | |
|---|---|
| AND | Z = A • B · 1 only if all 1 |
| OR | Z = A + B · 1 if any 1 |
| NOT | Z = Ā · inverts |

## TRUTH TABLES

| | |
|---|---|
| ROWS | 2 inputs 4 · 3 inputs 8 |
| ORDER | binary: 000 → 111 |
| COLUMNS | one per gate output |
| CHECK | outputs match the description |




Z = (G • H) • $\overline{S}$ with labelled input devices

## KEY WORDS

| | |
|---|---|
| both / all | AND |
| either / any | OR |
| not / unless | NOT |

## BOOLEAN

| | |
|---|---|
| • | AND |
| + | OR |
| bar | NOT |
| ( ) | gate order |

## SHORT CIRCUIT · EXAMINER TIPS

- Label every input device and the output.
- List rows in binary order.
- Use •, + and a bar – not words or × signs.
- A modification must fix the stated problem.