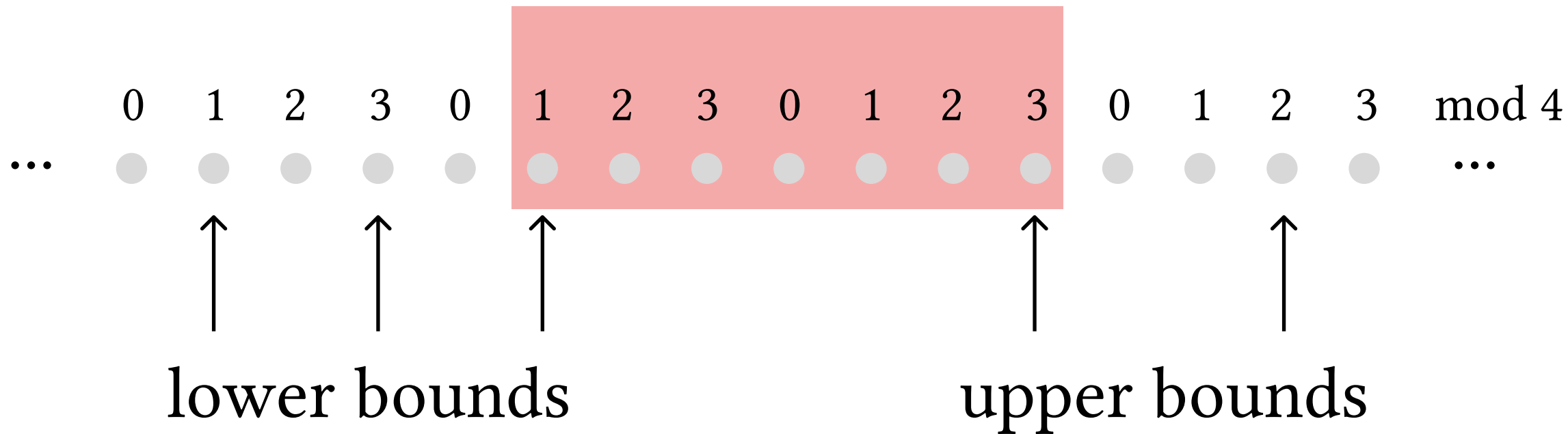


we want a number divisible
by 4 in this interval



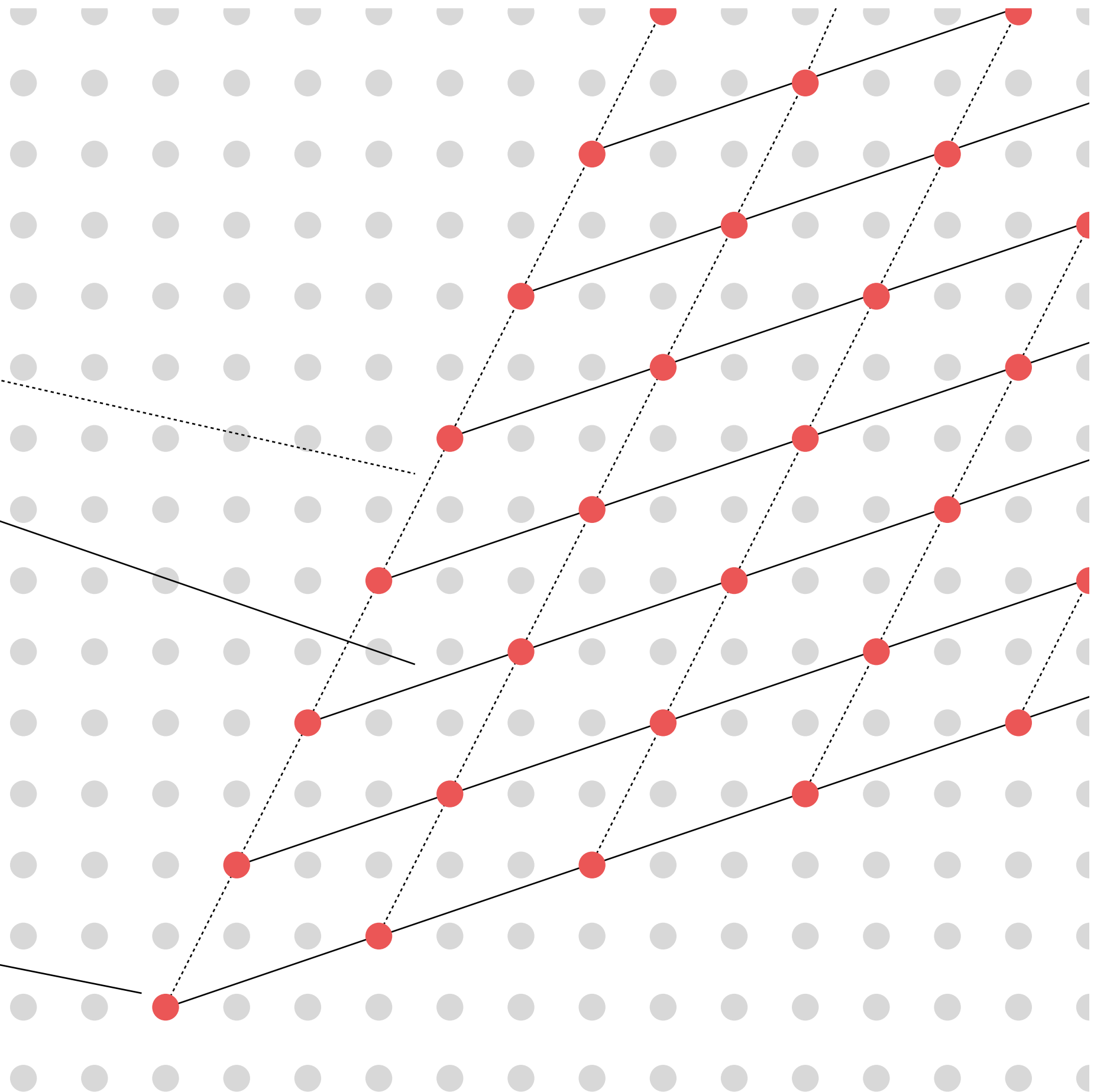
period vectors

$(1,2)$

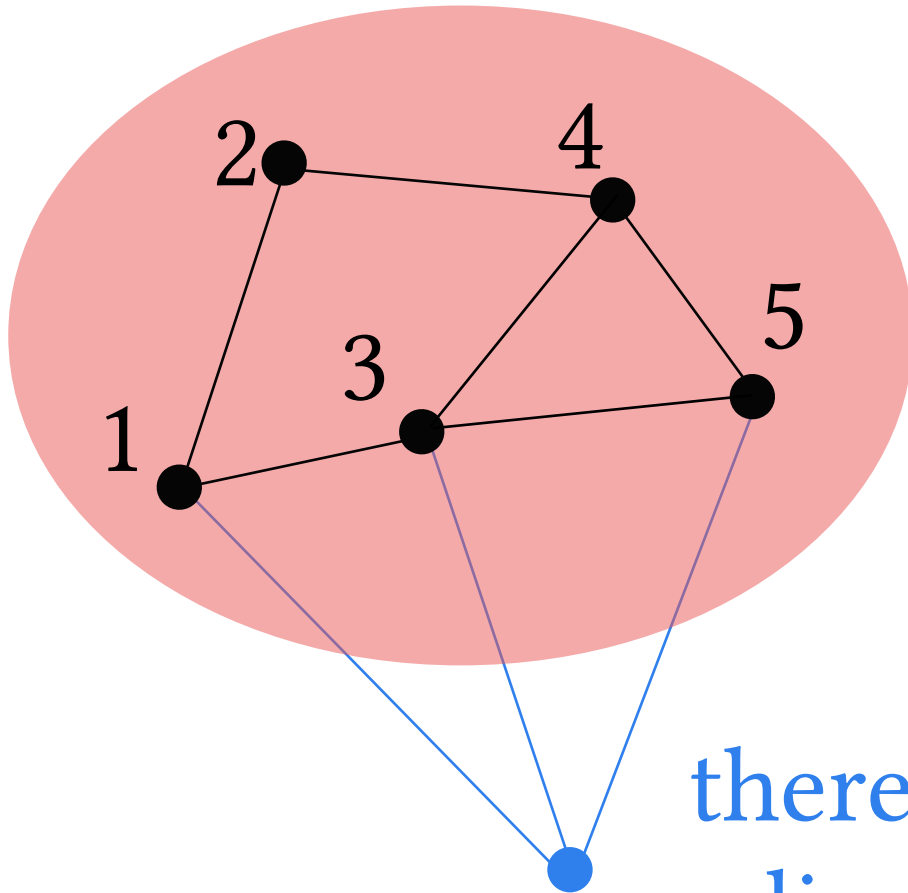
$(3,1)$

base vector

$(2,1)$



subgraph H with at most 5 vertices

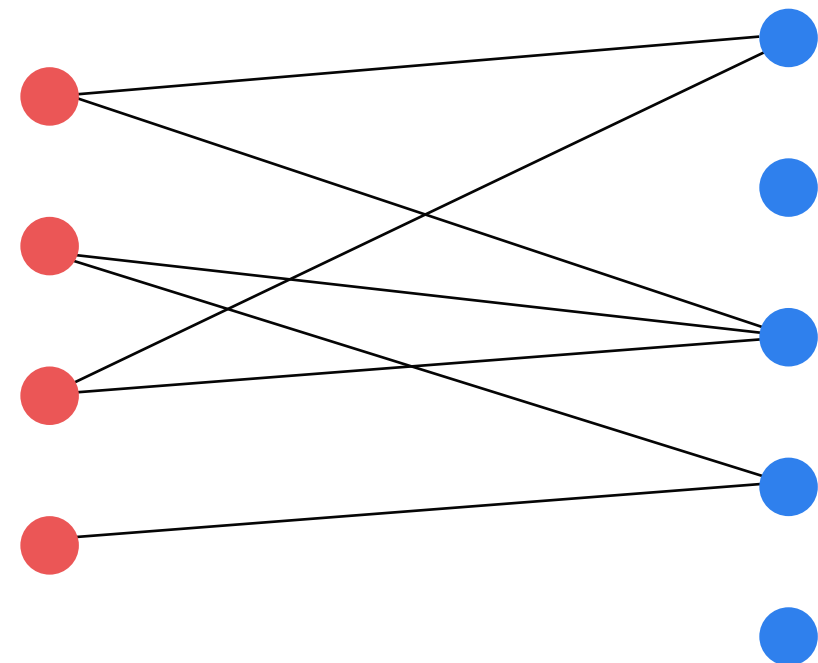
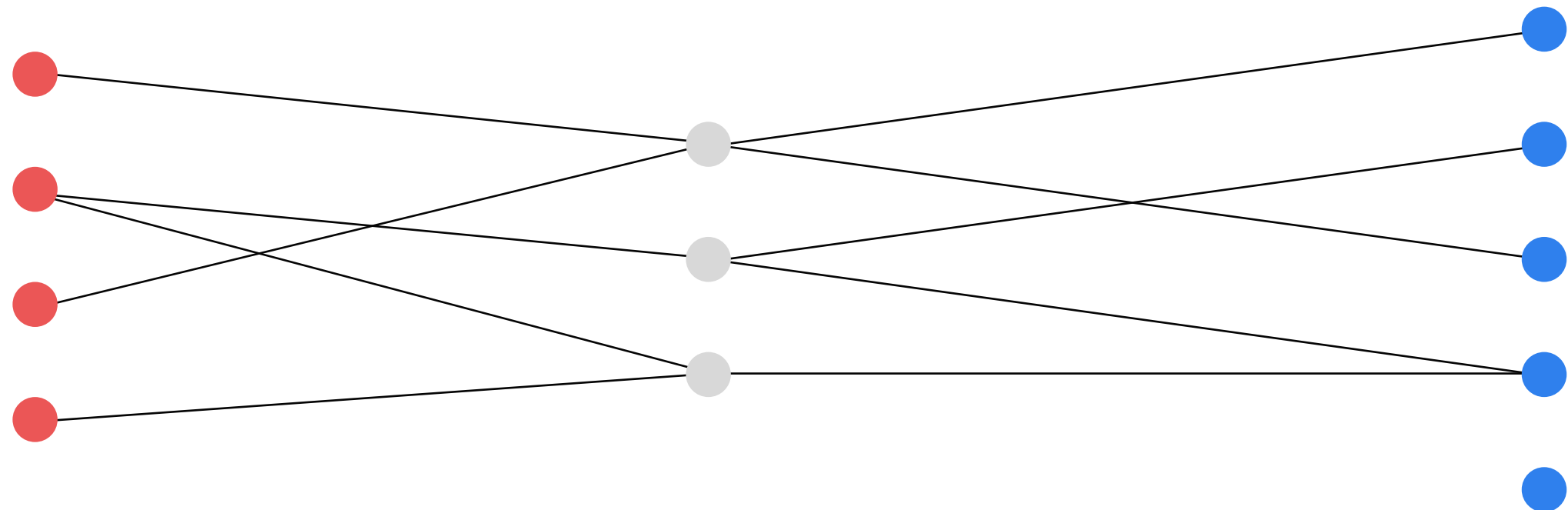









there must be vertex that is
adjacent to $\{1, 3, 5\}$ but not $\{2, 4\}$

... and similarly for every other subset









binary relations

matrices












| | | | |
|---|---|---|--|
| |  |  |  |
|  | 1 | 0 | 0 |
|  | 0 | 1 | 1 |
|  | 1 | 0 | 0 |
|  | 0 | 0 | 1 |

M

| | | | | | |
|---|---|---|---|---|---|
| |  |  |  |  |  |
|  | 1 | 0 | 1 | 0 | 0 |
|  | 0 | 1 | 0 | 1 | 0 |
|  | 0 | 0 | 1 | 0 | 0 |

N

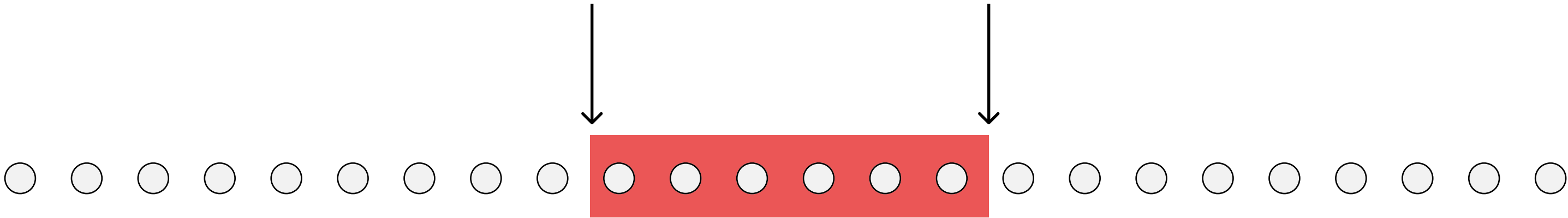
| | | | | | |
|---|---|---|---|---|---|
| |  |  |  |  |  |
|  | 1 | 0 | 1 | 0 | 0 |
|  | 0 | 0 | 1 | 1 | 0 |
|  | 1 | 0 | 1 | 0 | 0 |
|  | 0 | 0 | 0 | 1 | 0 |

$M \cdot N$

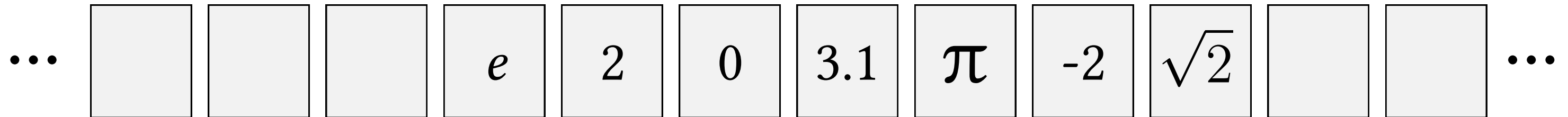


source cut

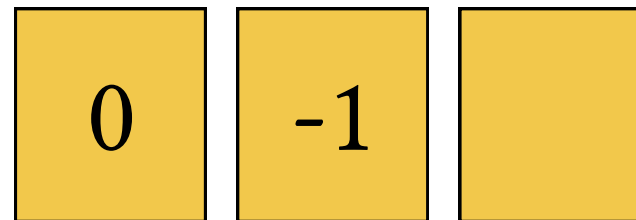
target cut



tape of the machine



q



state



registers