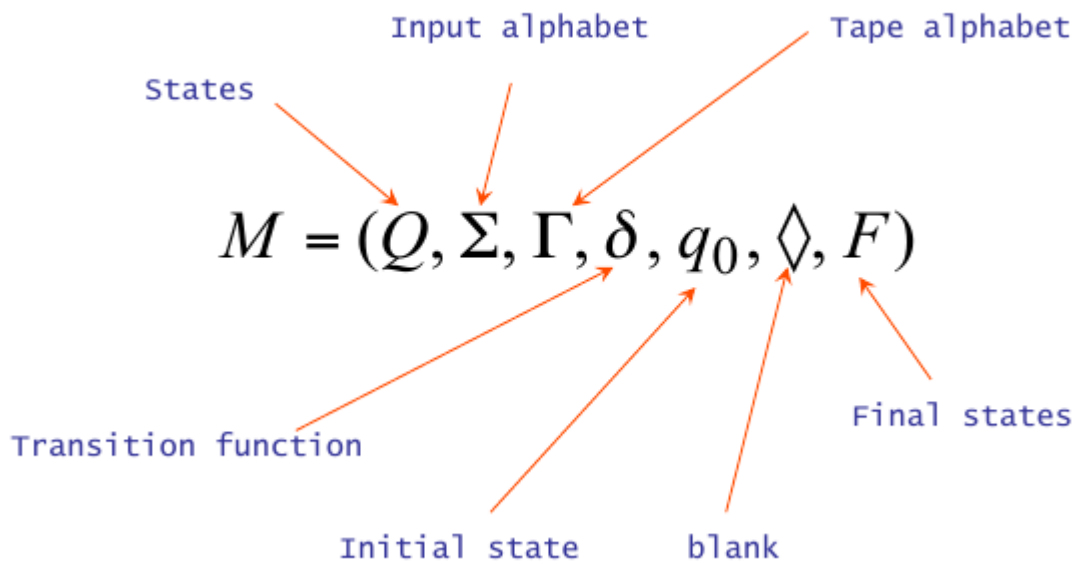


Macchine di Turing



$$f(x,y) = x + y$$

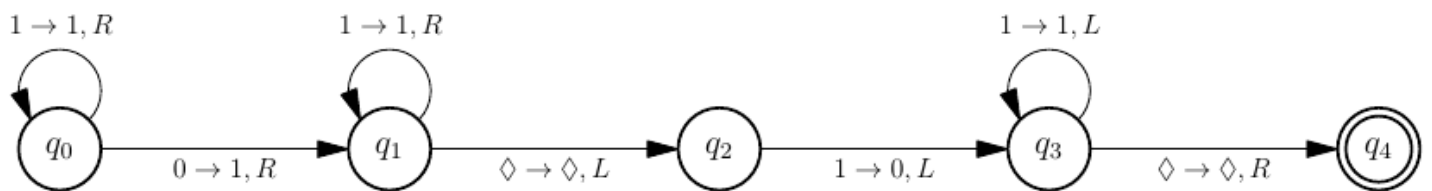
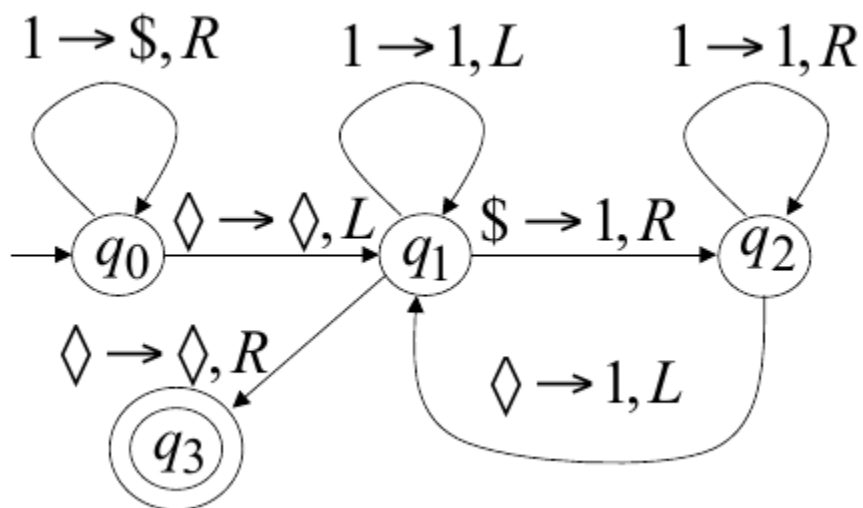


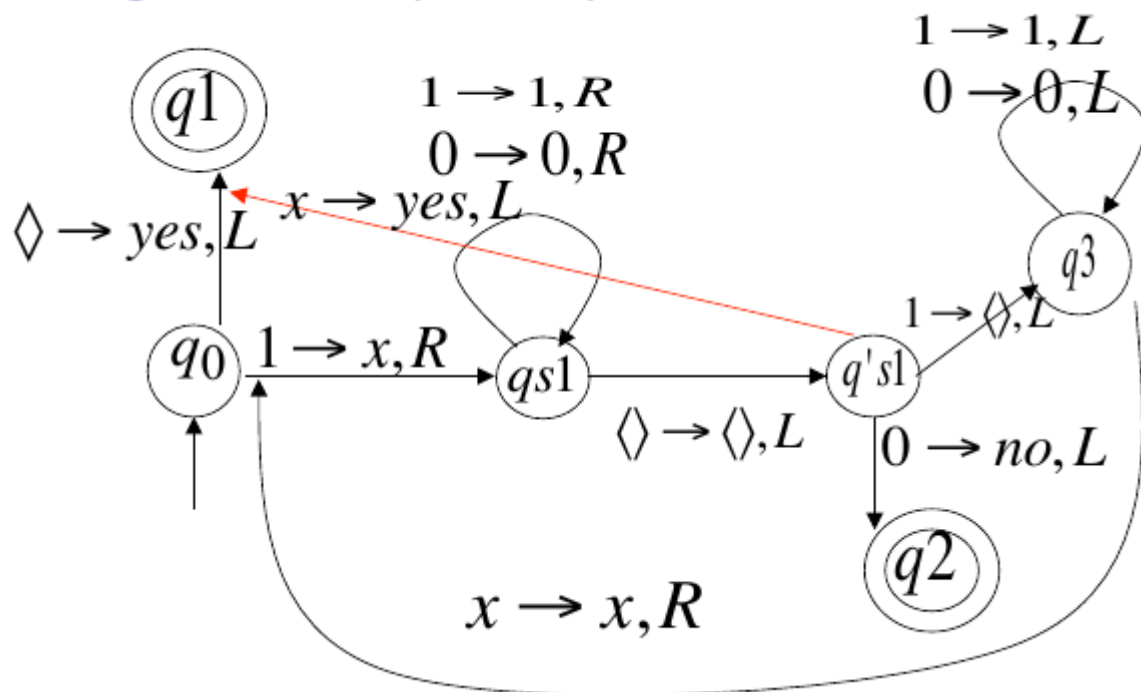
Fig. 7. Una macchina di Turing che calcola $x + y$.

$$f(x) = 2x$$

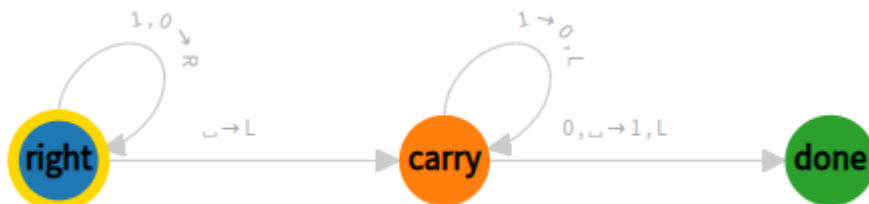


palindomi

Turing machine per i palindromi $w=w^r$



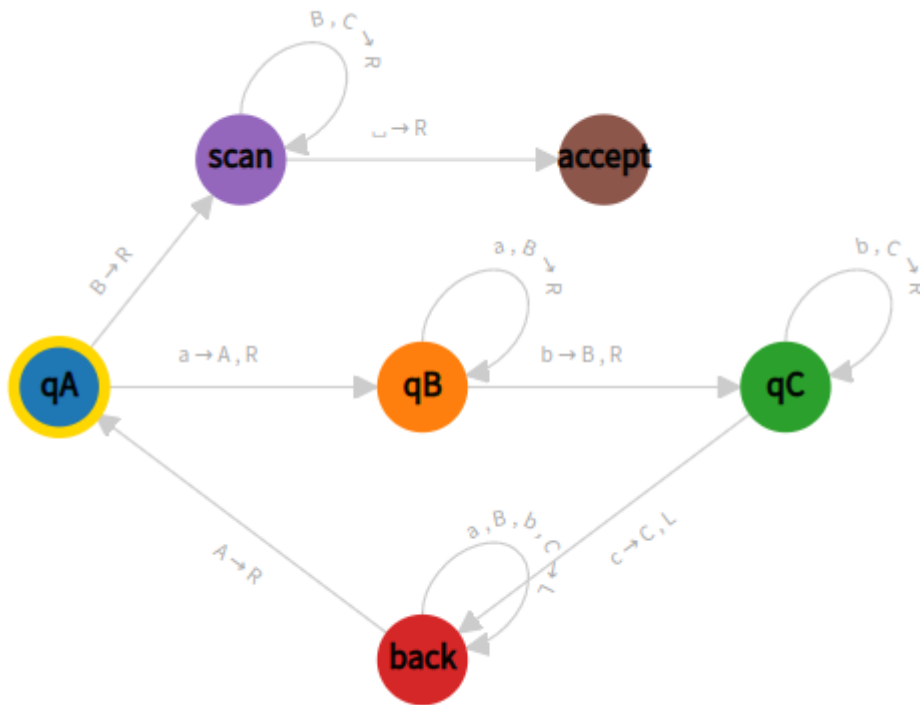
+1



- right: $[1, 0]: R \rightarrow \{L: \text{carry}\}$
- carry: $1: \{\text{write: } 0, L\} [0, \text{blank}]: \{\text{write: } 1, L: \text{done}\}$
- done:

3 equal length

$a^n b^n c^n$



- qA:
 - a: {write: A, R: qB}
 - B: {R: scan}
- qB:
 - [a,B]: R
 - b: {write: B, R: qC}
- qC:
 - [b,C]: R
 - c: {write: C, L: back}
- back:
 - [a,B,b,C]: L
 - A: {R: qA}
- scan:
 - [B,C]: R
 - ' ': {R: accept}
- accept: