

Ejercicio 11 Relación 3

Alejandro Manzanares Lemus
alexmnlms@correo.ugr.es

1 Programa Post-Turing

```
LEFT
[C] RIGHT
    IF # GOTO E
    IF 0 GOTO A
    IF 1 GOTO C
[A] PRINT #
    IF # GOTO C
[E] HALT
```

2 Máquina de Turing equivalente

$\delta(q_0, 0) = (q_0, \#, D)$
 $\delta(q_0, 1) = (q_0, 1, D)$
 $\delta(q_0, \#) = (q_f, \#, S)$

3 Traducción literal de programa Post-Turing a Máquina de Turing

LEFT:
 $\delta(q_0, *) = (q_1, *, I)$

RIGHT:
 $\delta(q_1, *) = (q_2, *, D)$

IF # GOTO E:
 $\delta(q_2, \#) = (q_7, \#, S)$
 $\delta(q_2, *) = (q_3, *, S)$

IF 0 GOTO A:
 $\delta(q_3, 0) = (q_5, 0, S)$
 $\delta(q_3, *) = (q_4, *, S)$

IF 1 GOTO C:
 $\delta(q_4, 1) = (q_1, 1, S)$
 $\delta(q_4, *) = (q_5, *, S)$

PRINT #:
 $\delta(q_5, *) = (q_6, \#, S)$

IF # GOTO C:
 $\delta(q_6, \#) = (q_1, \#, S)$
 $\delta(q_6, *) = (q_7, *, S)$

HALT:
 $\delta(q_7, *) = (q_f, *, S)$