

# Models of Computation Assessed Coursework II

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This document is a skeleton which provides macros to help typeset your solution to the coursework.

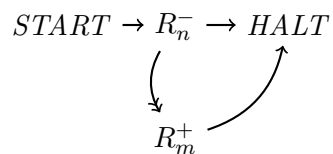
Register machine rules can be typeset like this:

$$\begin{aligned}L_0 &: R_1^- \rightarrow L_3, L_5 \\L_1 &: R_1^- \rightarrow L_4, L_2 \\L_2 &: HALT \\L_3 &: R_1^- \rightarrow L_1, L_2 \\L_4 &: R_0^+ \rightarrow L_0 \\L_5 &: HALT\end{aligned}$$

Pairs and encodings:

$$\begin{aligned}\langle\langle 1, 2 \rangle\rangle \\ \langle 3, 4 \rangle \\ \lceil [1, 2, 3, 4] \rceil = \langle 1, \langle 2, \langle 3, \langle 4, 0 \rangle \rangle \rangle \rangle \\ \lceil R_1^+ \rightarrow L_2 \rceil\end{aligned}$$

Graphing a register machine:



Other useful notation:

$\mathbb{N}$

$n_\phi$