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§31. Protochips and parachips

Recall that for any prechip  $e$  we have put

$$e[B] = e(B, B, 0) \quad \text{for } 1 \leq B \leq o(\ell(e))$$

and

$$e[[B]] = \sum_{\substack{1 \leq b \leq o(\ell(e)) \\ 0 \leq c \leq b(\ell(e))}} e(B, b, c) \quad \text{for } 1 \leq B \leq o(\ell(e)).$$

By a protochip we mean a prechip  $e$  such that

$$e[[B]] \neq 0 \quad \text{for } 1 \leq B \leq o(\ell(e)).$$

By a parachip we mean a protochip  $e$  such that

$$e[B] \neq 0 \quad \text{for } 1 \leq B \leq o(\ell(e)) - 2.$$