

DAY 13

$$\mathcal{R}_{\varepsilon}^E(E, z_{\text{dest}}, E_{\text{cont}}) = (e', \varepsilon')$$

register allocation E
command sequence

store the last
command in z(Dest)

continue with the
following

NOTES

- RegAlloc environments: ε : before the command execution, ε' : after the execution of $x \leftarrow e$, ε'' : after the execution of $(x \leftarrow e, E)$.
 - Command sequence: E : original command sequence, E' : the command sequence for $x \leftarrow e$ after its regalloc, E'' : the command sequence for E after its regalloc.
 - All the registers are occupied with live variables (y scans over live variables $FV(E'_{\text{cont}})$). The variable's value is pushed out of the allocated register and is saved in the stack (\$).
 - $\varepsilon'(y) \leftarrow E'$: Save the result of $x \leftarrow e$ in the register which was occupied with y ($\varepsilon'(y)$).
 - If the register y is going to be used while executing E but is not allocated, yet, we can use the register to store the value of x for the moment.

DAY 14

To remove ambiguous var names — a conversion