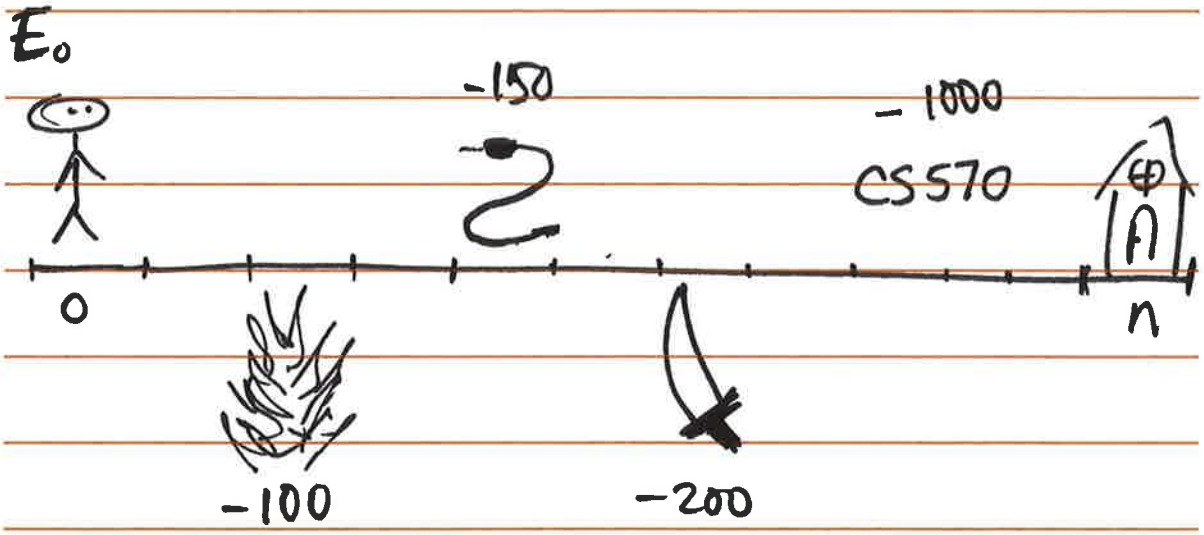
dynamic Programming

video game problem



you lose e(i) units of energy when landing on square i.

- jump into next square costs 50 units
- jump over one square " 150 "
- jump over 2 " Costs 350 "

$OPT(i)$ = the opt. energy level at step i.

Case 1 - $OPT(i) = OPT(i-1) - 50 - e(i)$

" 2 - $OPT(i) = OPT(i-2) - 150 - e(i)$

" 3 - $OPT(i) = OPT(i-3) - 350 - e(i)$

$OPT(i) = Max\,(OPT(i-1) - 50 - e(i),$
$OPT(i-2) - 150 - e(i),$
$OPT(i-3) - 350 - e(i))$