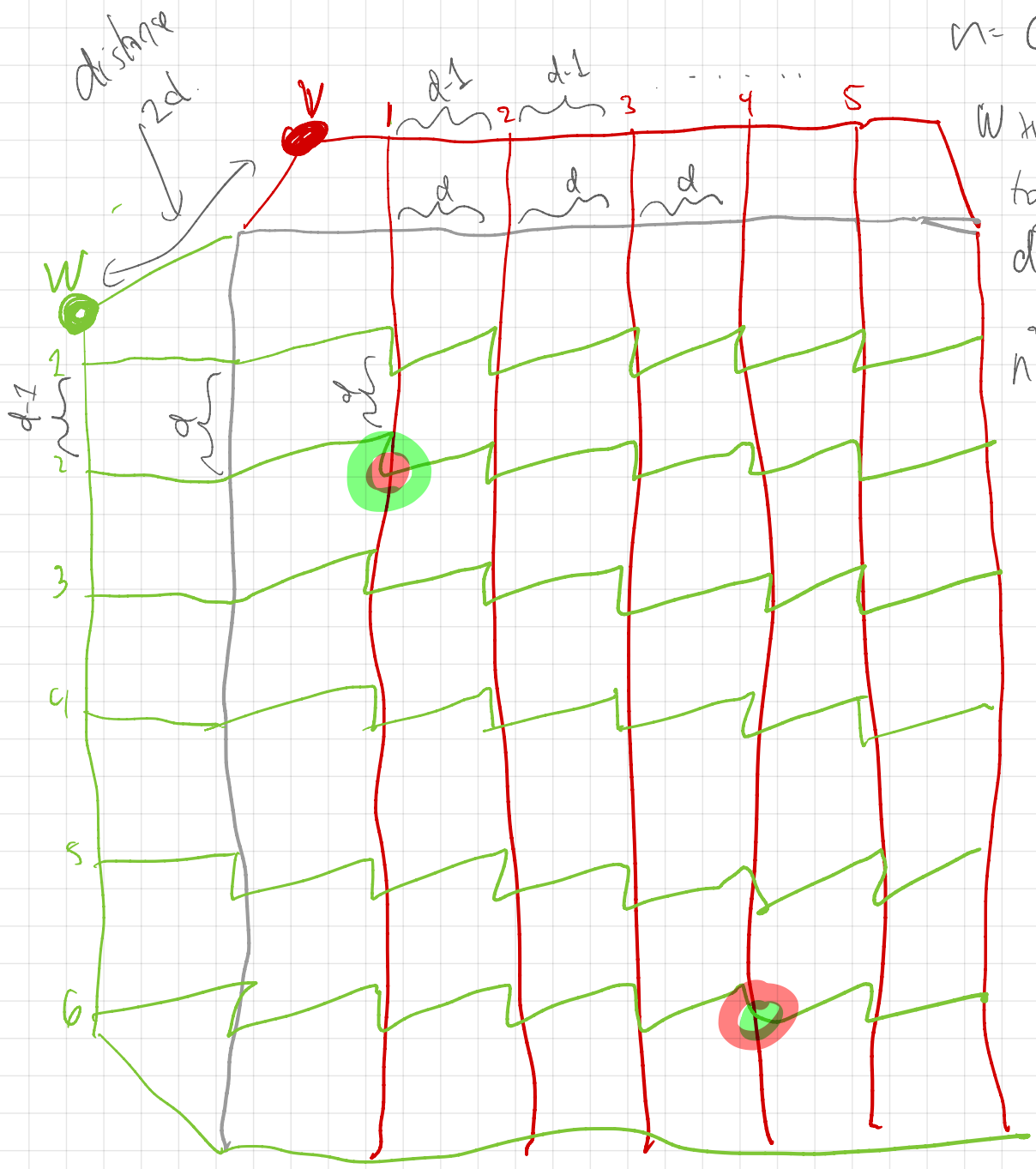
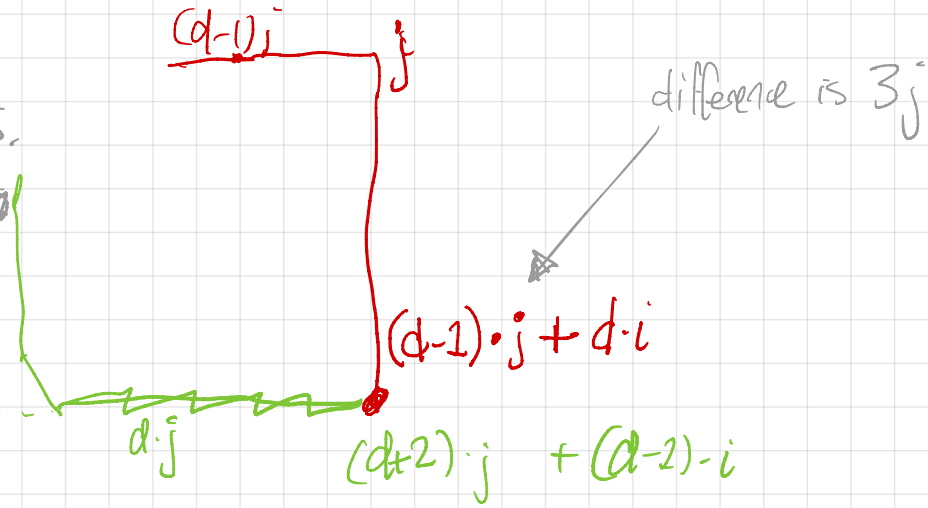
$n = d^3$ vertices.

W would have to store d^2 bits.

$n^{2/3}$



d^2 binary choices.

↳ don't appear at all in BFS tree of v

Also don't appear in BFS tree of w.