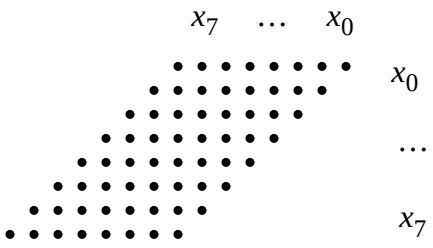
SQUARING

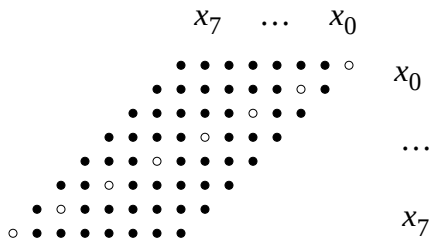
Squaring

- x^2 can be done with about half the hardware of a full multiply (for a *dedicated* squaring block, of course)



Squaring

- Diagonals ($x_0 x_0$, $x_1 x_1$, …) can be replaced by the single input bit with no computation for that bit
- x_0 AND $x_0 = x_0$



Squaring

- Pairs of equivalent bit products ($x_1 x_0$ and $x_0 x_1$, …) can be replaced by one bit product shifted over one column
- $x_1 x_0$, $x_0 x_1 = 2 \times x_0 x_1$