

In-class Exercise 7

(PAR 11)

- Show Boolean n-space representation of
 - $F(a, b, c) = abc + ab'c + a'bc'$
 - $F(a, b, c) = a' + bc$
- Show compact cubical form of
 - $F(a, b, c) = ab + b'c + a'b'c'$
 - $F_1(a, b, c) = abc + ab'c + c'$; $F_2(a, b, c) = abc + a'b'c' + bc + b'c$
- Calculate $F \cap G$ for

$$\begin{array}{r} F = \\ \begin{array}{cccc} 0 & 0 & 1 & 3 & 4 \\ 2 & 1 & 0 & 3 & 4 \\ 0 & 2 & 0 & 4 & 3 \end{array} \end{array} \qquad \begin{array}{r} G = \\ \begin{array}{cccc} 0 & 0 & 1 & 4 & 3 \\ 2 & 2 & 0 & 4 & 4 \\ 0 & 1 & 0 & 4 & 4 \end{array} \end{array}$$

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$$\begin{array}{r} F = \\ \begin{array}{cccc} 0 & 0 & 1 & 3 & 4 \\ 2 & 1 & 0 & 3 & 4 \\ 0 & 2 & 0 & 4 & 3 \end{array} \end{array} \qquad \begin{array}{r} G = \\ \begin{array}{cccc} 0 & 0 & 1 & 4 & 3 \\ 2 & 2 & 0 & 4 & 4 \\ 0 & 1 & 0 & 4 & 4 \end{array} \end{array}$$