2-CNF-SAT

CNF where each term has exactly two literals

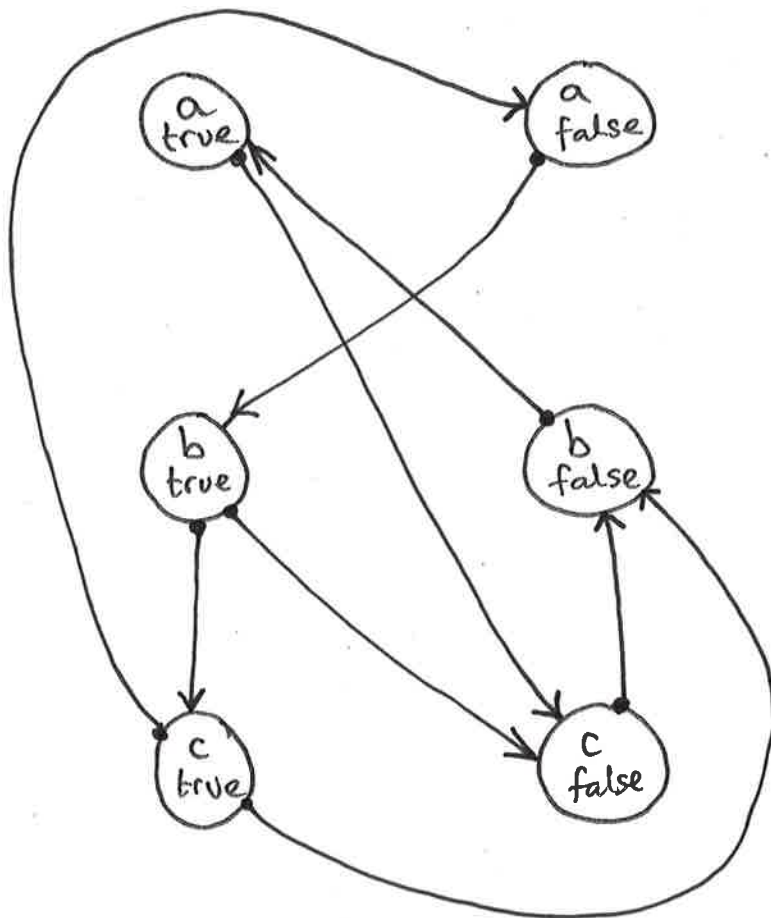$$F = (a \lor b) \land (\bar{a} \lor \bar{c}) \land (\bar{b} \lor c) \land (\bar{b} \lor \bar{c})$$

The four terms must all be true.

$(a \lor b)$ = a or b is true

= if a is false, b must be true
and if b if false, a must be true

$(a \lor b) \equiv (\bar{a} \Rightarrow b) \land (\bar{b} \Rightarrow a)$

so $F = (\bar{a} \Rightarrow b) \land (a \Rightarrow \bar{c}) \land (b \Rightarrow c) \land (b \Rightarrow \bar{c})$
$\land (\bar{b} \Rightarrow a) \land (c \Rightarrow \bar{a}) \land (\bar{c} \Rightarrow \bar{b}) \land (c \Rightarrow \bar{b})$

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