NP-complete problem C

C ∈ EXP

every A ∈ EXP

can embed A-problem in the C problem

written \( A \leq C \)

"A reduces to C"

cannot 3-color this "widget", if corners are same color
Convert SAT problem to color problem:

\[(x_1 \lor \overline{x}_2 \lor \overline{x}_5) \land (x_2 \lor x_3 \lor \overline{x}_5) \land \ldots\]

Colors: T, F, B

Check that each clause has a T literal.
Use a widget for each clause.

Color = Truth assignment