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## CS 440 Assignment: Prolog Cut Operator

1. Prop:
$\operatorname{prop}(\mathrm{X}, \mathrm{R}):-\operatorname{prime}(\mathrm{X}), \mathrm{R}$ is prime;
odd $(\mathrm{X}), \mathrm{R}$ is odd;
even (X), R is Even.
even (X) :- 0 is $\bmod (\mathrm{X}, 2)$.
$\operatorname{odd}(\mathrm{X}):-\boldsymbol{\operatorname { n o t }}(\mathrm{even}(\mathrm{X}))$.
2. Max: If $A ; B$, the first line fails, attempts to backtrack, and fails the entire search instead of moving on to line 2 . The cut should be at the end of the line.
3. Flatten:
flatten ([], []).
flatten $([H \mid A],[H \mid A]):-$ flatten $(A, B)$.
flatten $([L \mid A], Z):-\quad$ is_list $(L), \quad!, \quad \operatorname{append}(L, A, X), \quad$ flatten $(X, Z)$.
