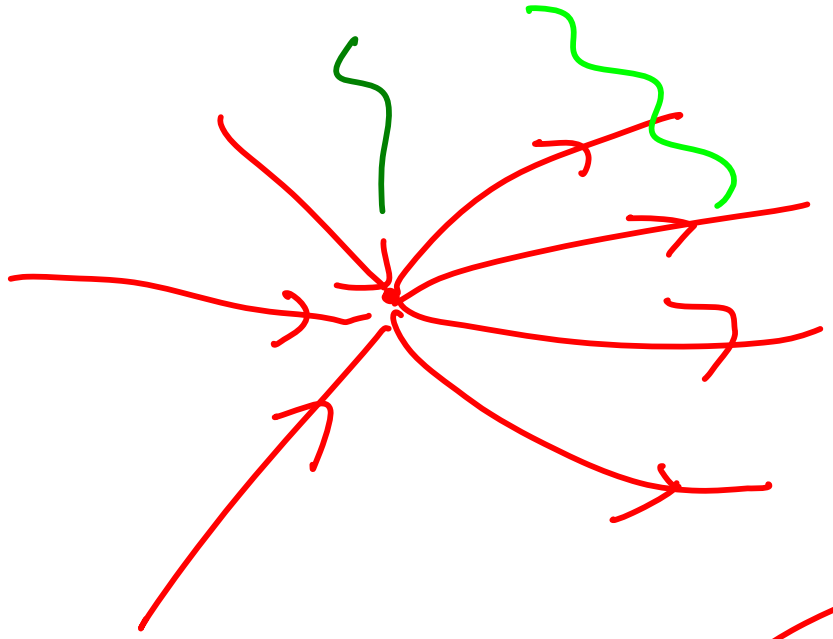
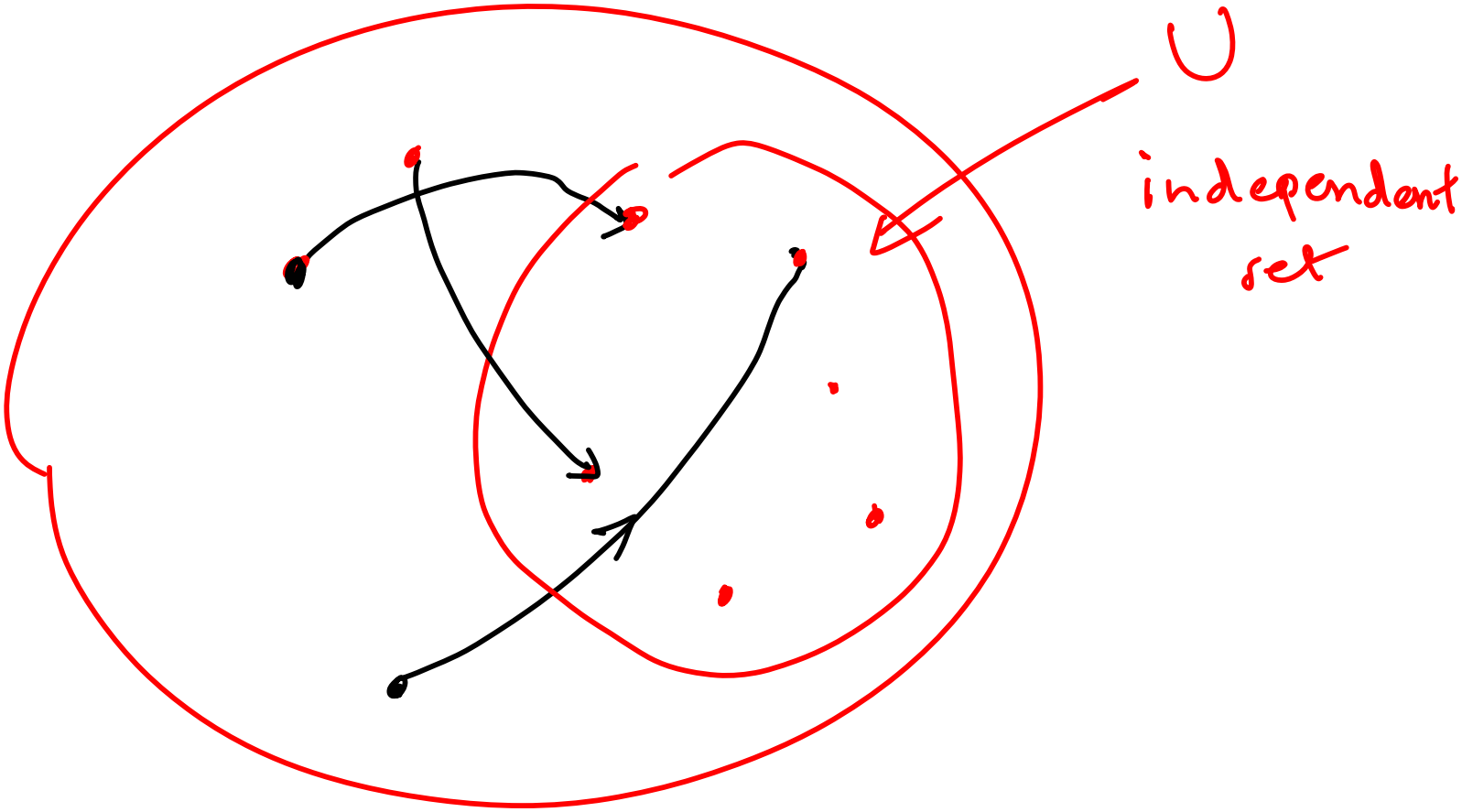
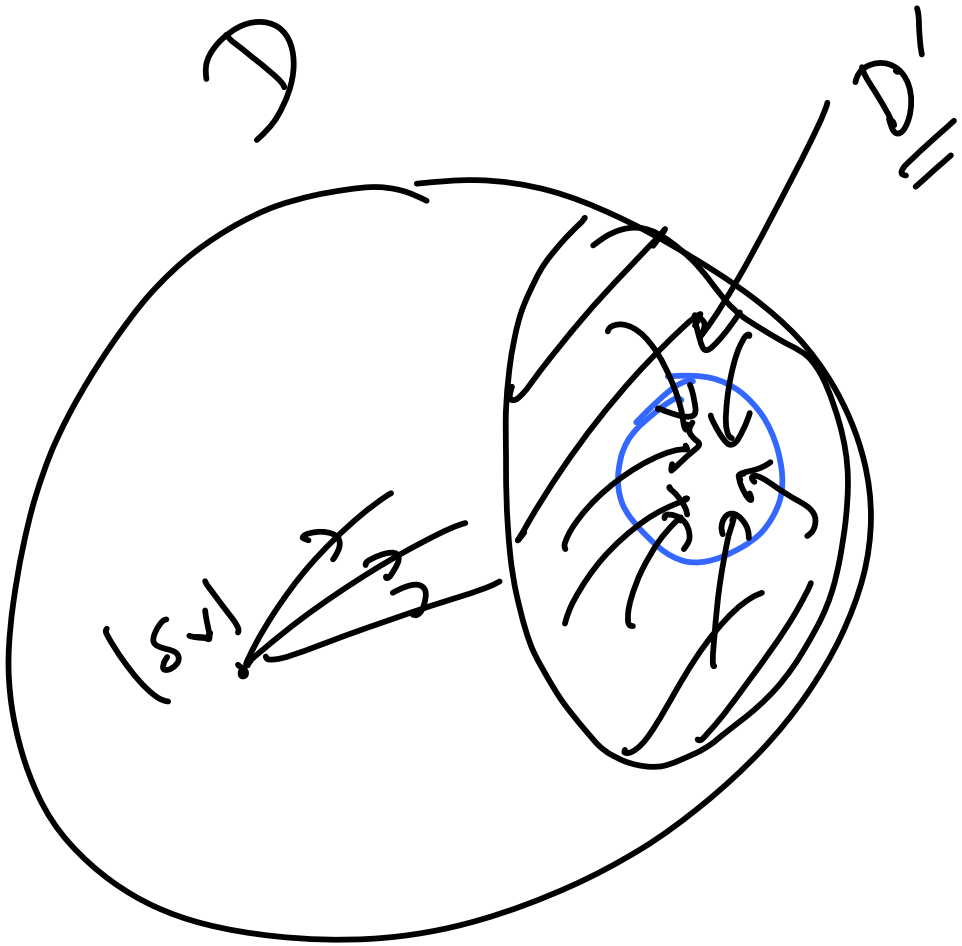


$d^+(v)$

$d^-(v)$

$d^+(v) < k$ ✓

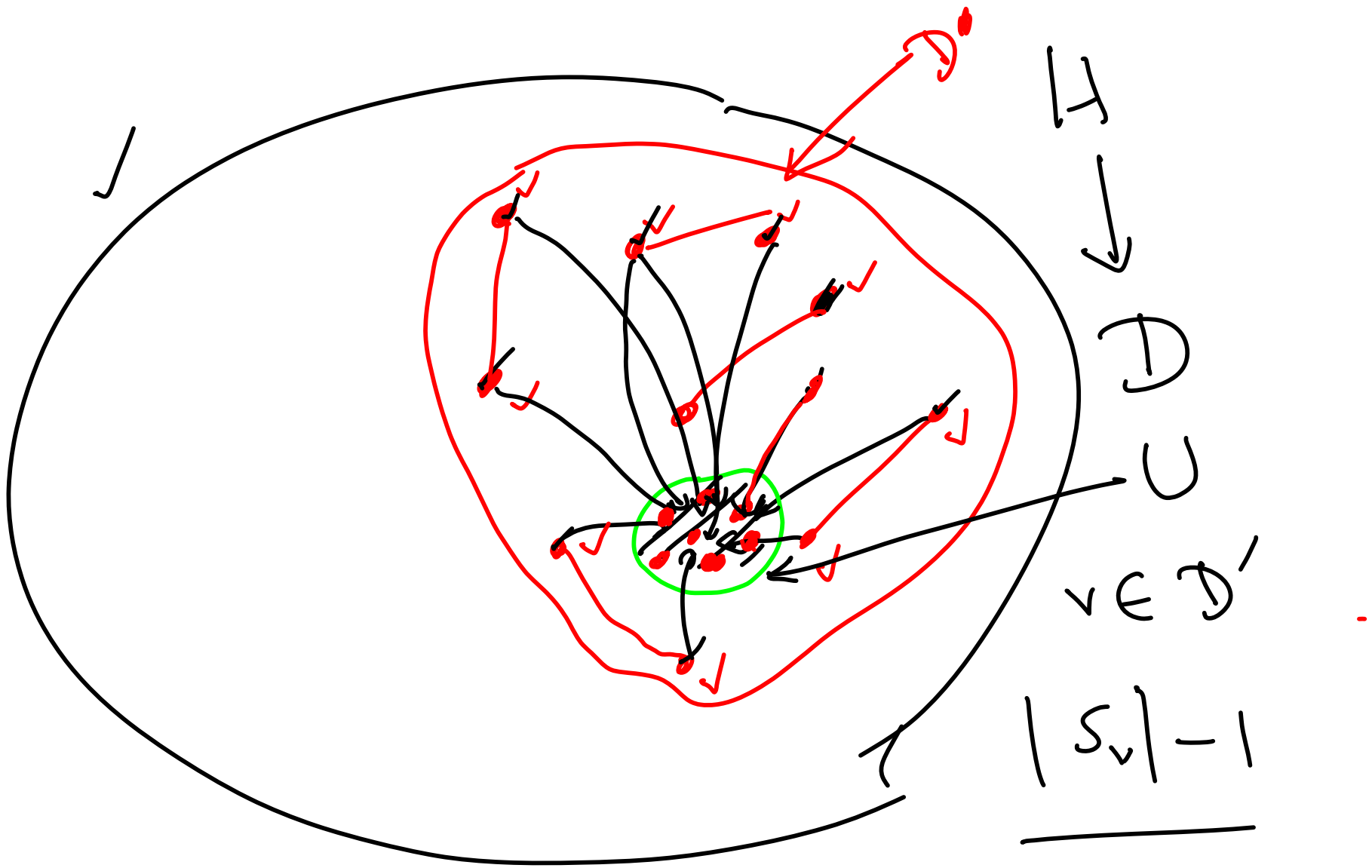

U
independent
set

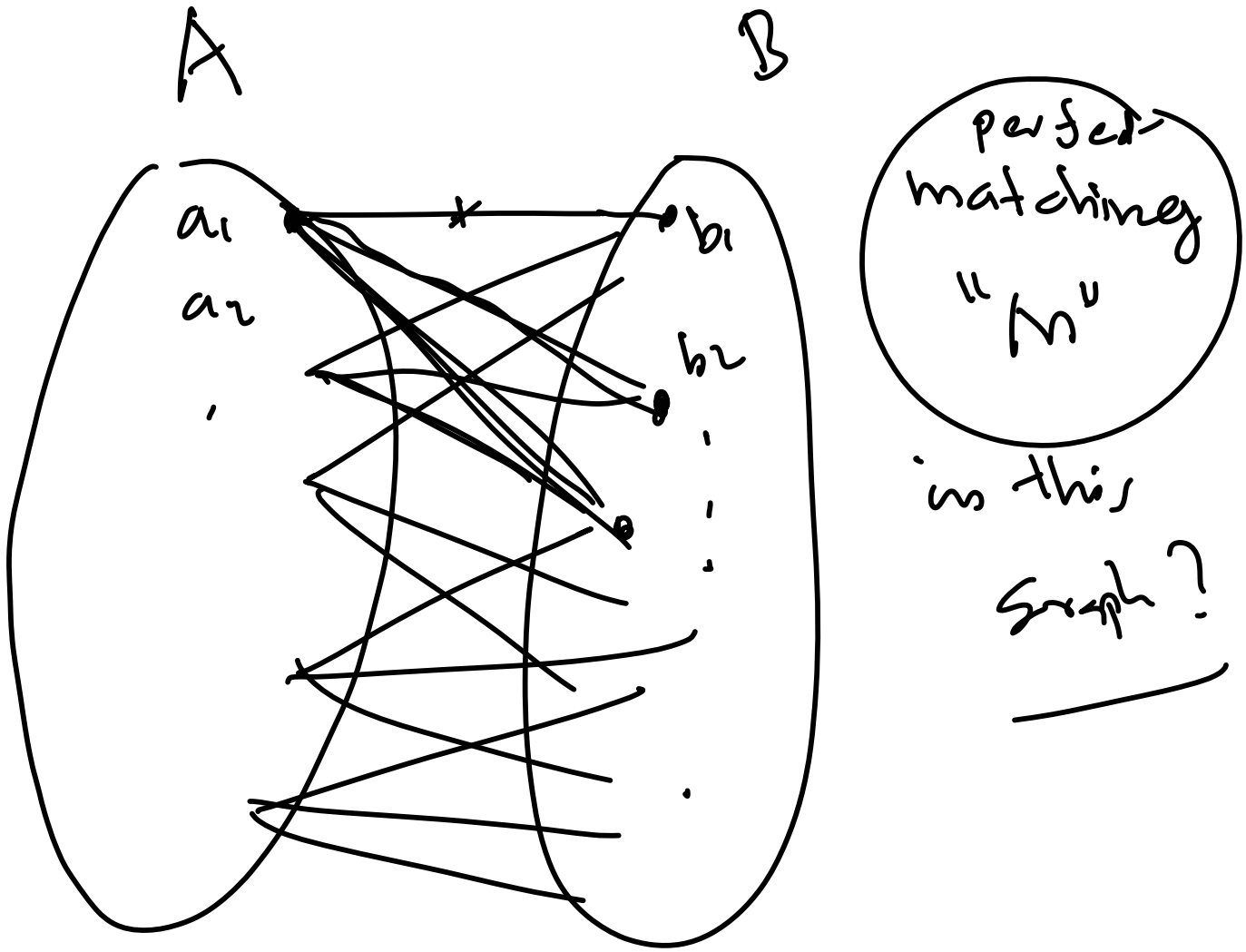

D
D'
|S1|

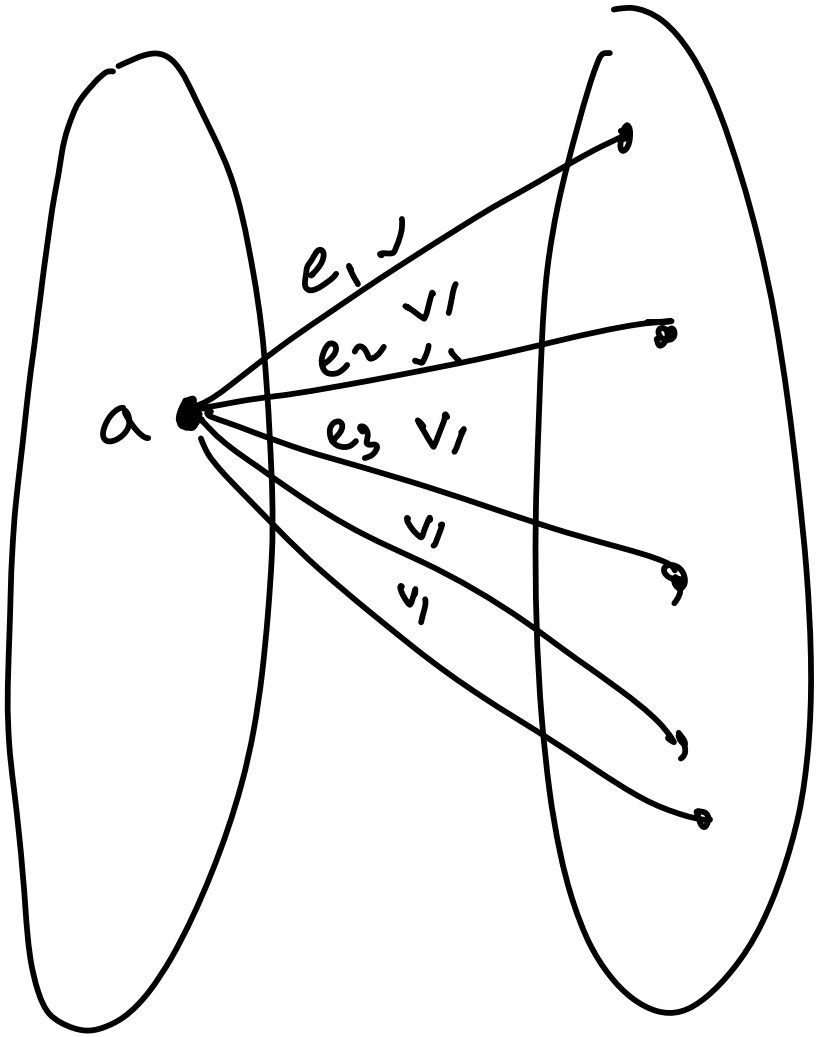
(1) Each vertex v satisfies.

$$d^+(v) < |S_v|$$

(2) Each induced subgraph D' of D has a kernel.

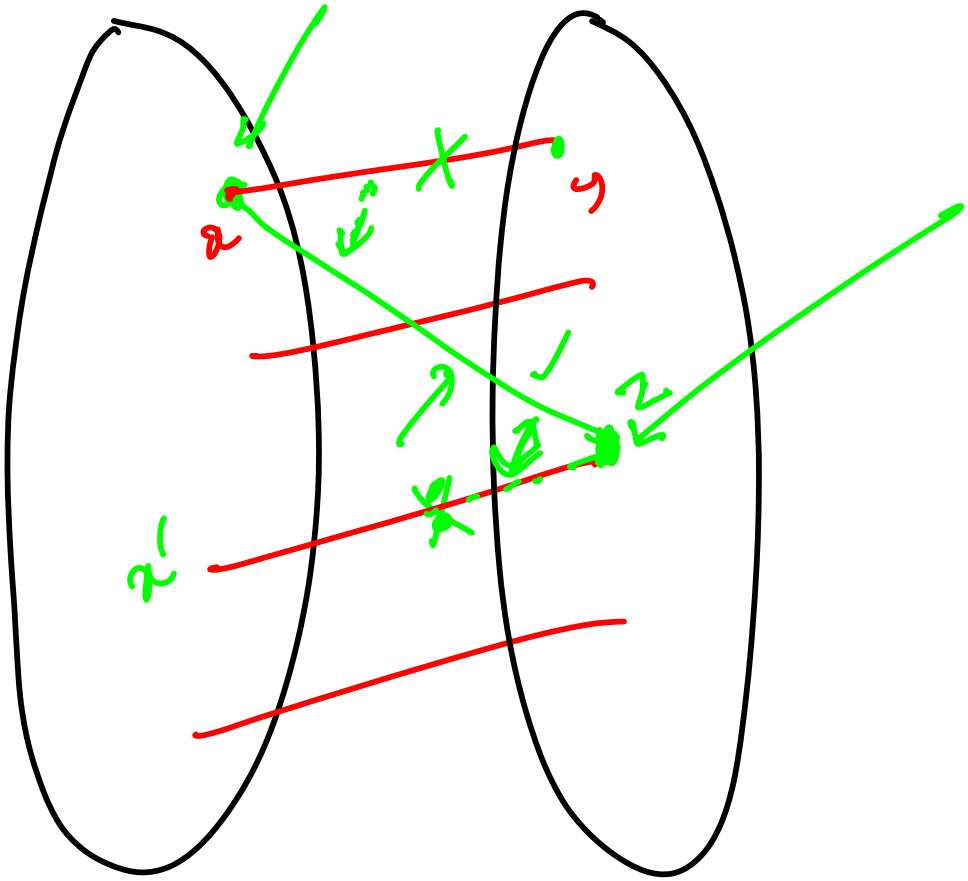

D'
H
D
U
v ∈ D'
|S_v| - 1

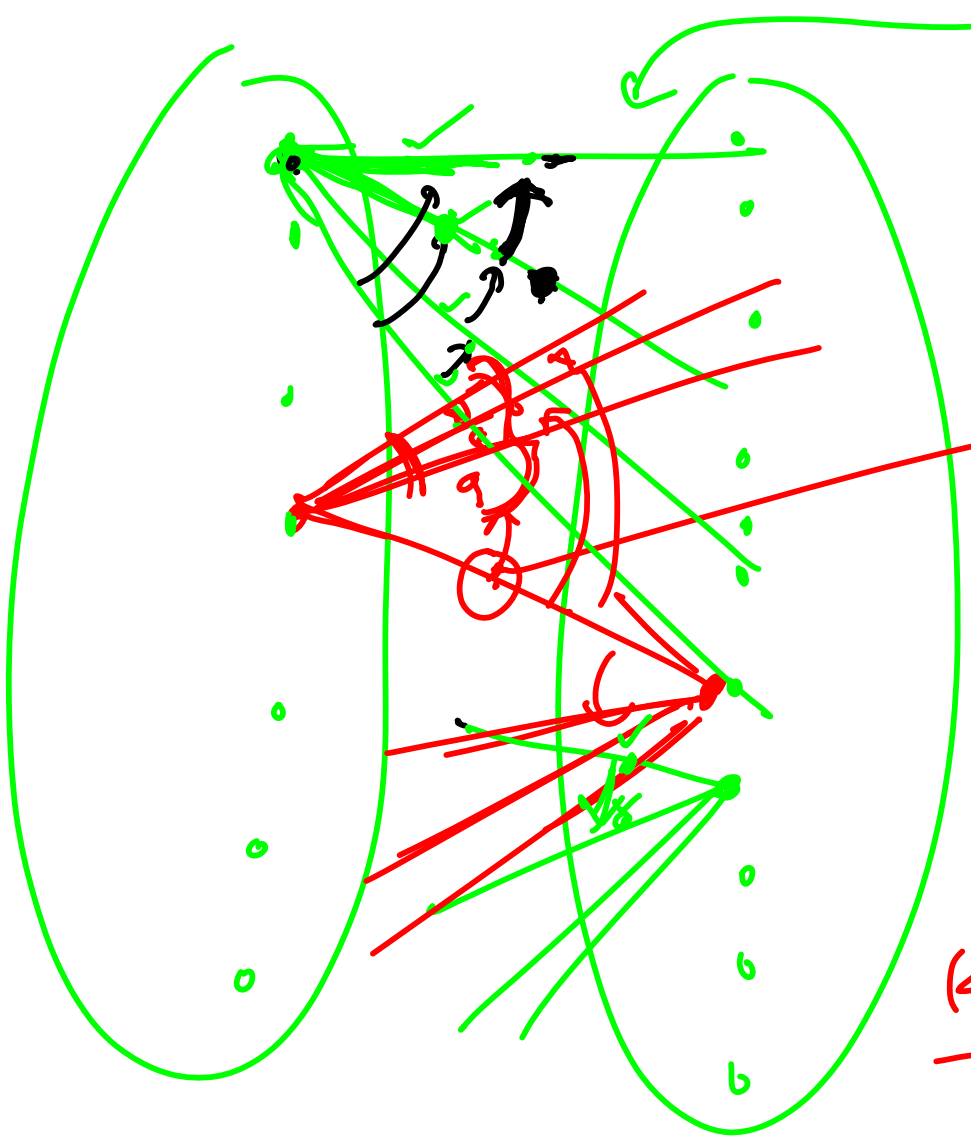

A
B
a_1
a_2
b_1
b_2
perfect matching "M"
in this graph?



$e_2 \leq_a e_1$

$e_3 \leq_a e_2$


x
y
z
x'



$\chi'(G)$

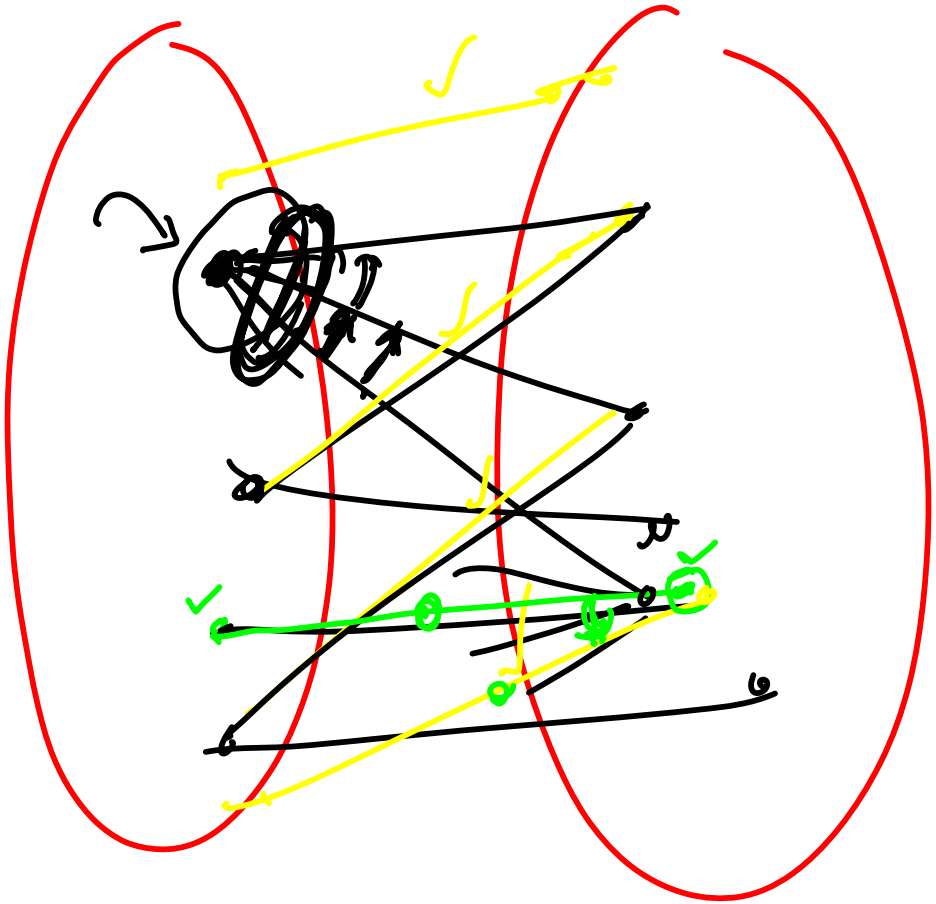
$1 \le 2 \le 3 \le \cdots \chi'$

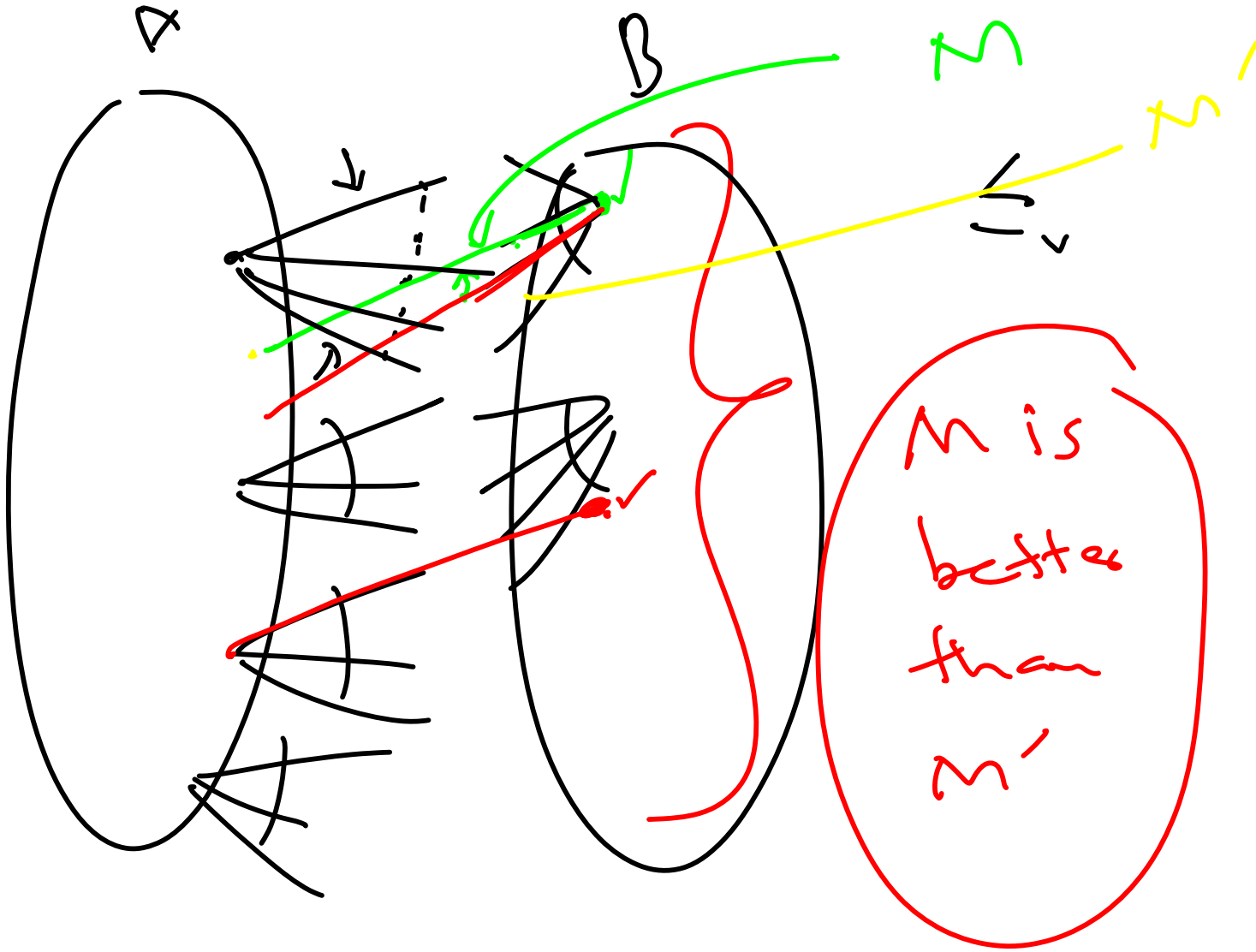
i

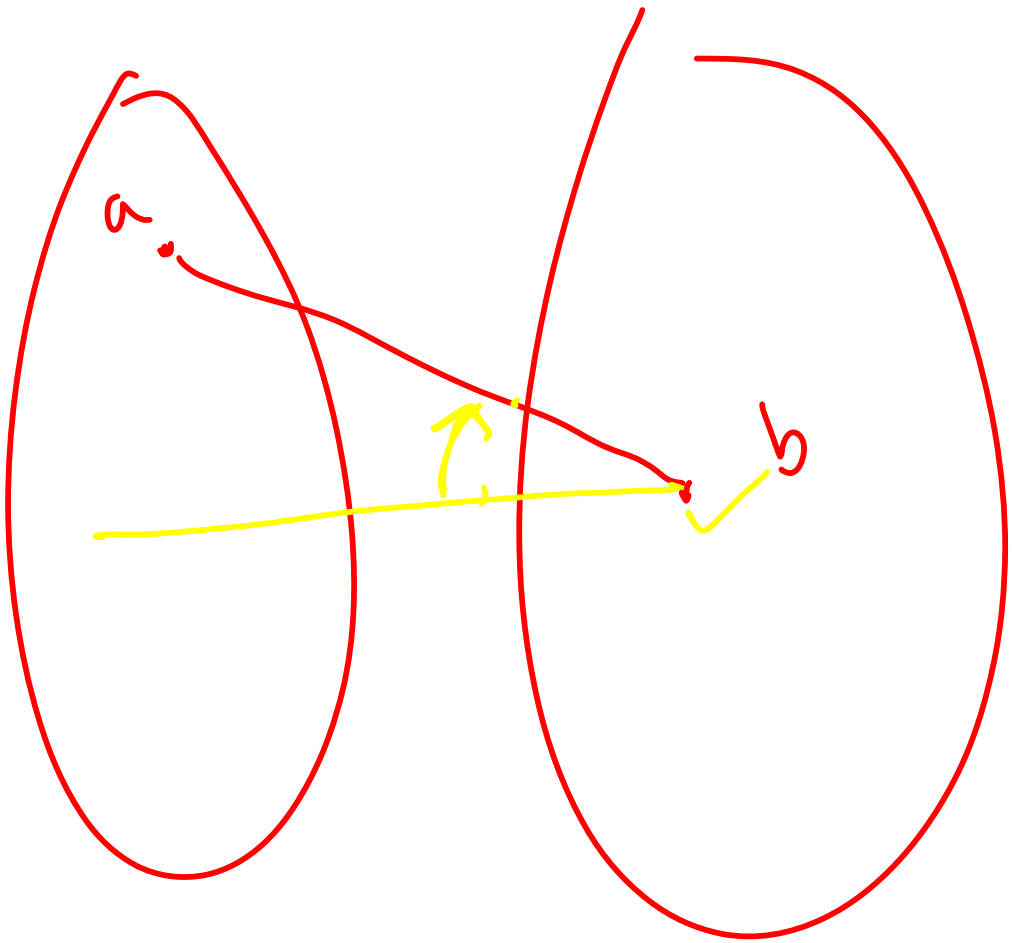
$1, 2, 3, \cdots i-1$

$i+1, i+2, \cdots \chi$

$k = \chi - 1$




A
B
M
M'
M is
better
than
M'


a
b