$top(c)$

$bad = unused$

$c, a, d, b \; ; \; bad = (b,c), (d,c)$

$a, b, d, c \; ; \; bad = \qquad (c,a)$
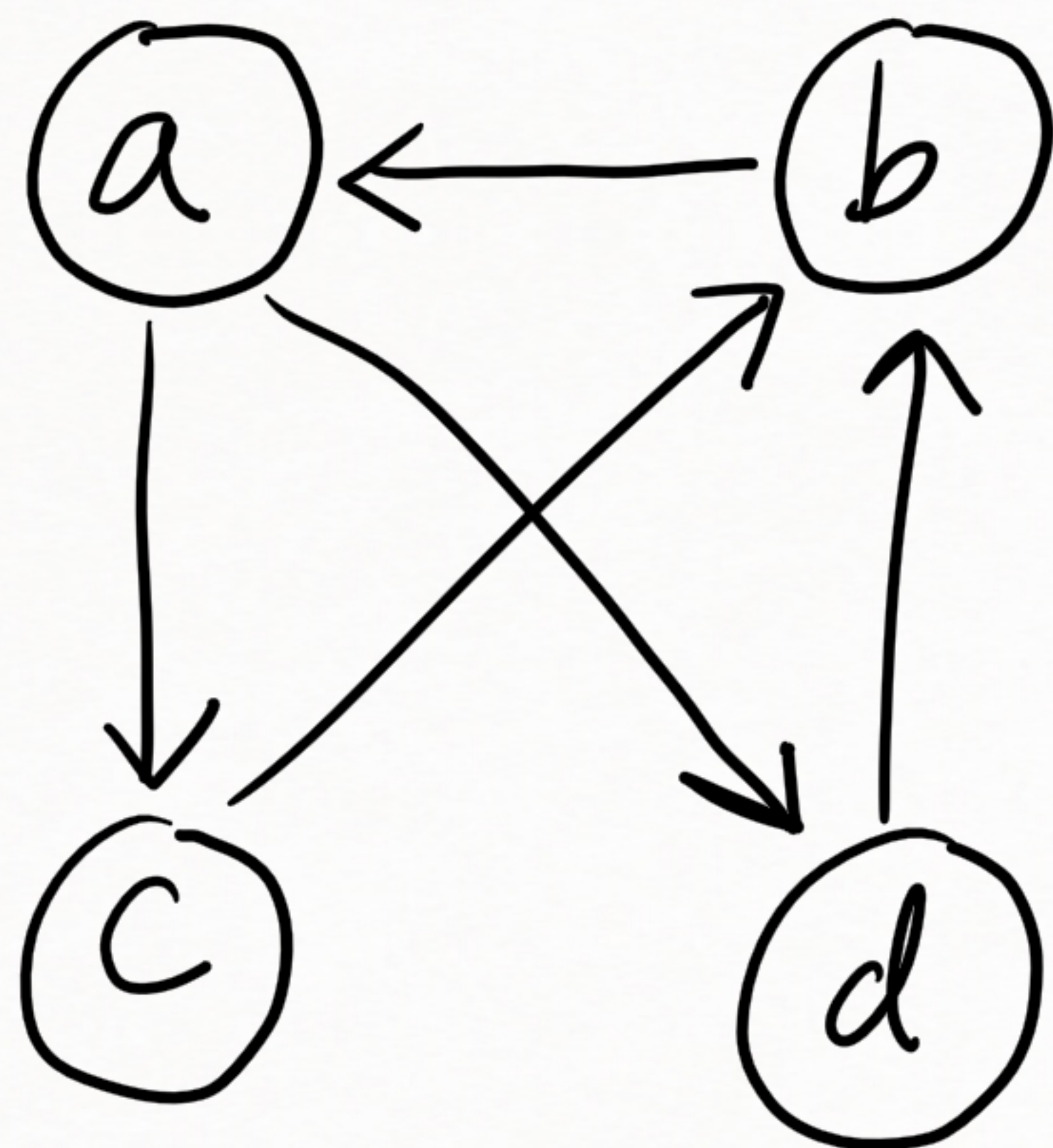
$top(b)$

$b, a, d, c \; ; \; bad = (c,b), (d,b)$

$a, c, d, b \; ; \; bad = (b,a)$
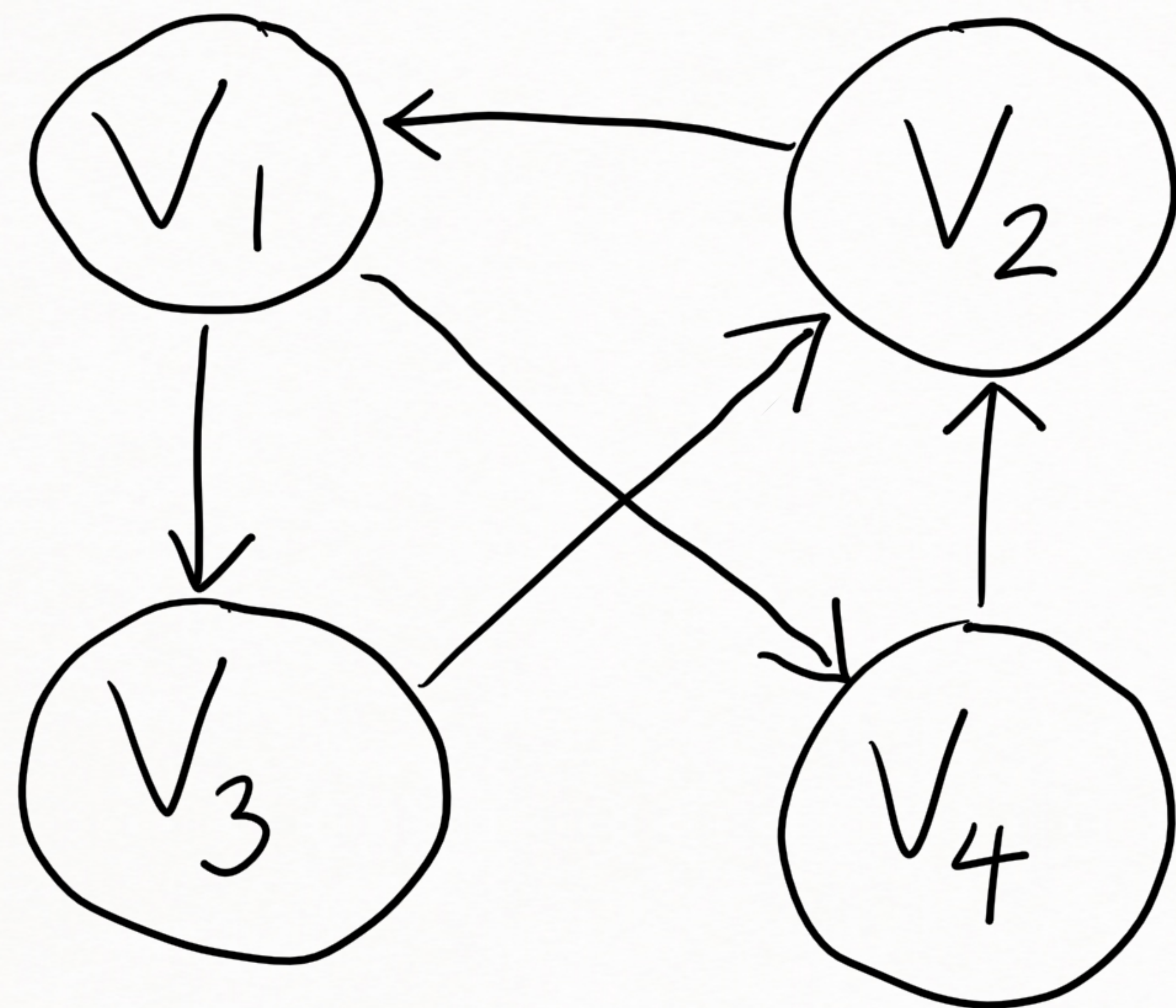
$top(V_2):$

V_2, V_1, V_4, V_3 ; bad $=$
$(V_3, V_2), (V_4, V_2)$

V_1, V_3, V_4, V_2 ; bad $=$
(V_2, V_1)