k-m Lower bound.

Date

16TH JAN (MEETING 1)

Thm1. If a node has k-value < 0, this doesnot impact the answer set.

Thm2. (WRONG) Max. k-core value of node u after addition of m edges is (k+m) at start time

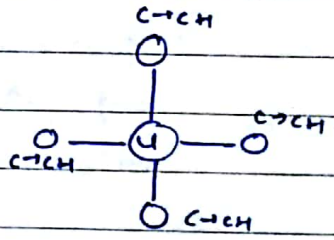
My task: Find lowerbound.

C_A C_B

d_A d_B

X_u^A X_u^B

$C_B \leq d_B \leq d_A + MC$

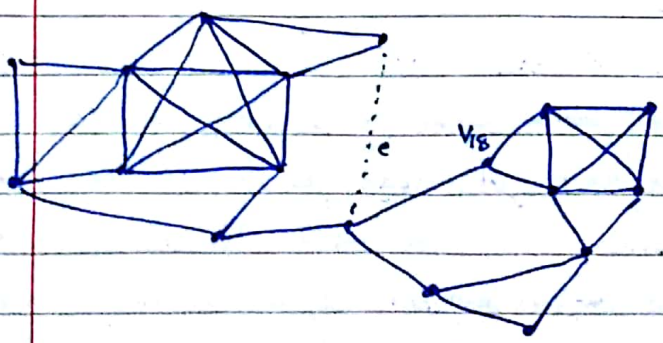


WRONG → $C_B \leq X_u^B \leq \text{Upperlimit}(X_u^B) = X_u^A + MC$

↓

$Y_u^A \bar{+} MinC = \text{lowerlimit}(Y_u^B) \leq Y_u^B \leq C_B$

WRONG Thm2: Proof ~~of~~ by example:



According to Thm2, Max. k-core of V_{18} after 0 edge inserting to V_{18} is 2+0 = 2.

But after adding edge e, k-core of V_{18} = 3.