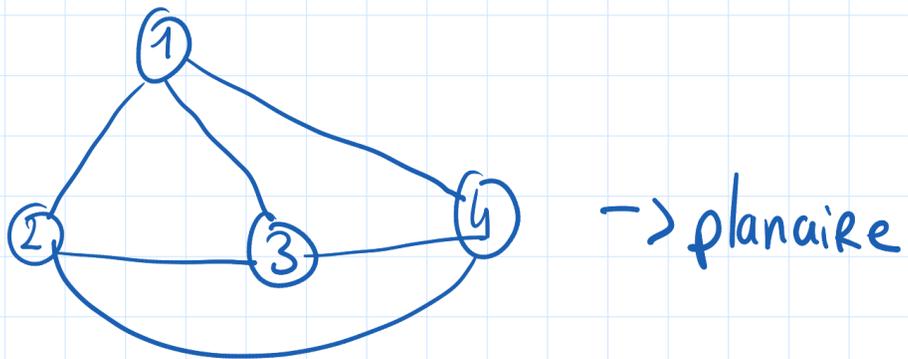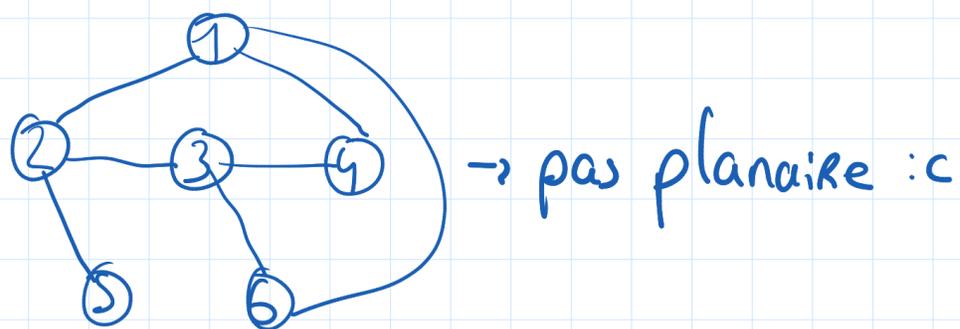# ① Planaire ou pas ?

ⓐ Soit $G = \{V, E\}$, $V = \{1, 2, 3, 4\}$, $E = \{\{1,2\}, \{1,3\}, \{1,4\}, \{2,3\}, \{2,4\}, \{3,4\}\}$

→ planaire

ⓑ $V = \{1, 2, 3, 4, 5, 6\}$, $E = \{\{1,2\}, \{1,4\}, \{1,6\}, \{2,3\}, \{2,5\}, \{3,4\}, \{3,6\}, \{4,5\}, \{5,6\}\}$

→ pas planaire :c

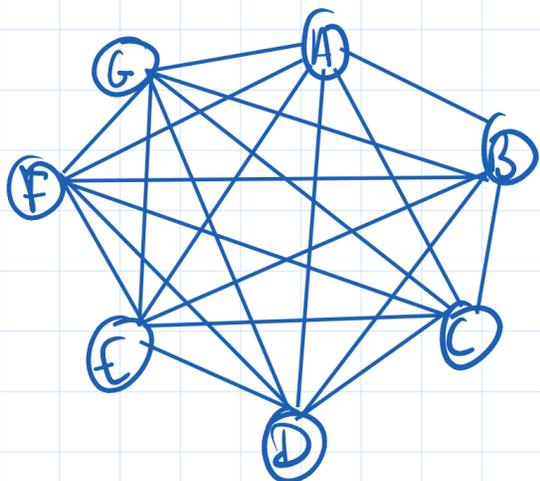# ② Propriété de petits graphes

Soit $V = \{A, B, ..., G\}$

$LINE = \{V, \{\{A,B\}, \{B,C\}, \{C,D\}, \{D,E\}, \{E,F\}, \{F,G\}\}\}$

Degré : A, G : 1   B...F : 2

Distance min . 1,   max . 6

$CLIQUE = \{V, \{\{A,B\}, \{A,C\}, ... \{A, G\}, \{B,C\}, ... \{B,G\}, ... \}\}$

Degré : 6

Distance : 1

STAR : {V, {{A,B}, {A,C}, {A,D}, {A,E}, {A,F}, {A,G}}}
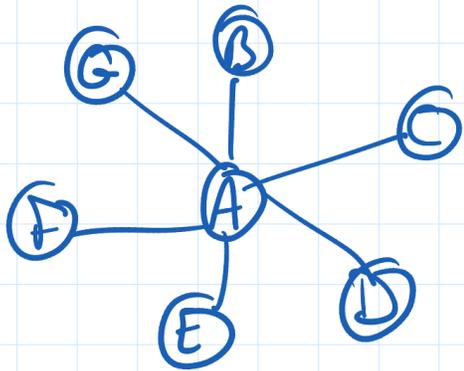
Degré A : 6 , autres : 1

Distance A : 1, autres 1 à 2

Centralité P : $\frac{3}{8}$

" I :
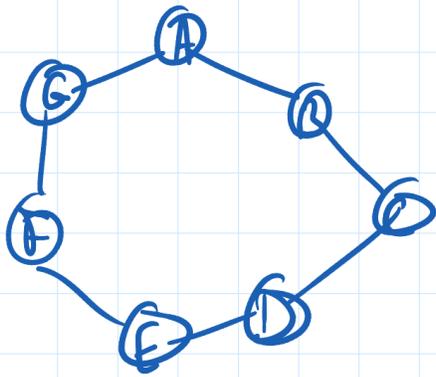
CIRCLE : (V, {{G,A}, {A,B}, {B,C}, ... {F,G}})

Degré : 2

distance min : 1

distance max : 3

CIRCLE2 : (V, {{G,A}, {A,B}, {B,C}, ... {F,G}})

{A,D}

Degré : 2

distance min : 1

distance max : 3