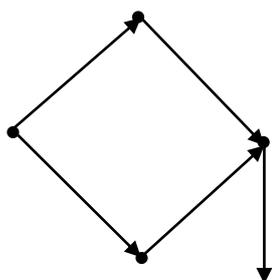


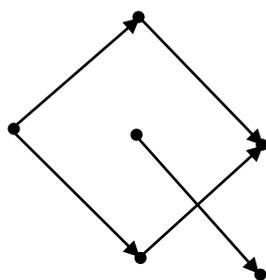
## TRAVAUX DERIGES - SÉRIE N° 02

### EXERCICE N° 01

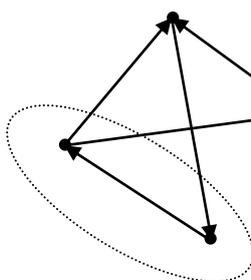
Etudier la connexité dans les graphes suivants :



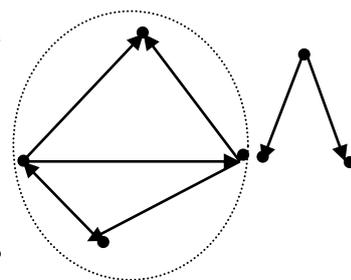
(a)



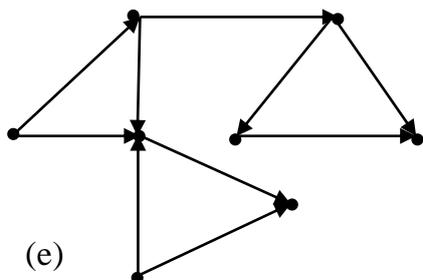
(b)



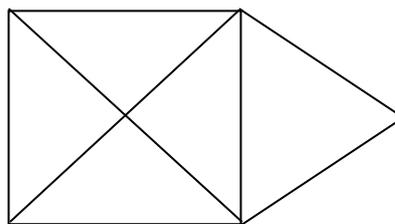
(c)



(d)

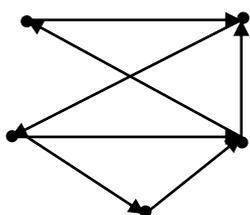


(e)

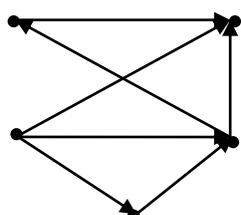


### EXERCICE N° 02

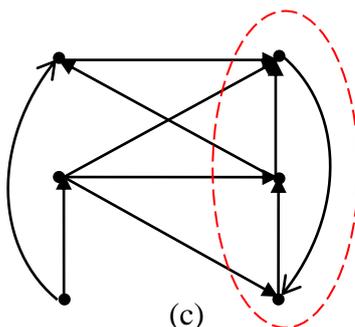
Etudier la forte connexité dans les graphes suivants :



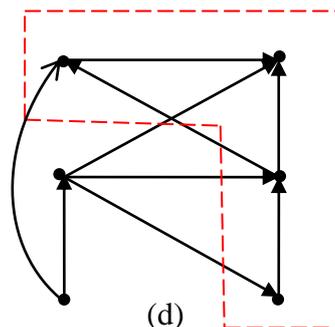
(a)



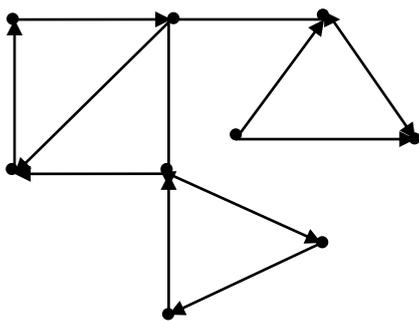
(b)



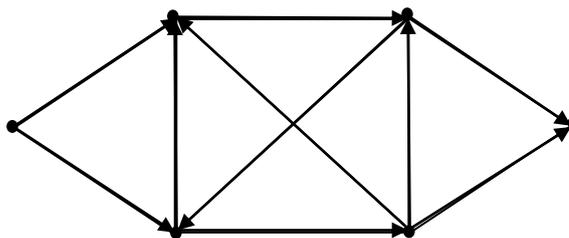
(c)



(d)

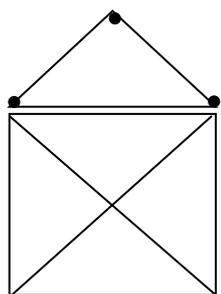


(e)

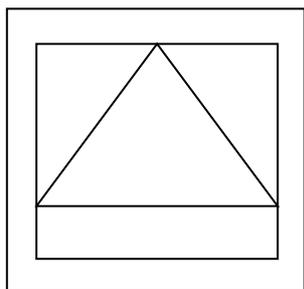


**EXERCICE N° 03**

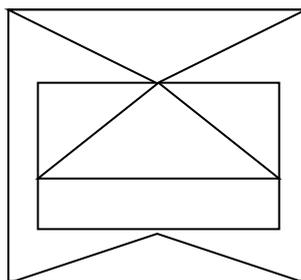
Etudier la connexité et la forte connexité dans les graphes ci-après :



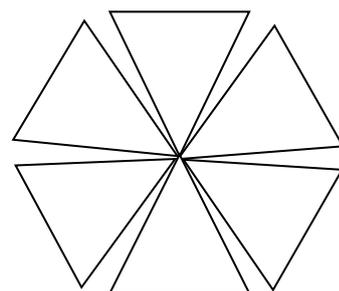
(a)



(b)



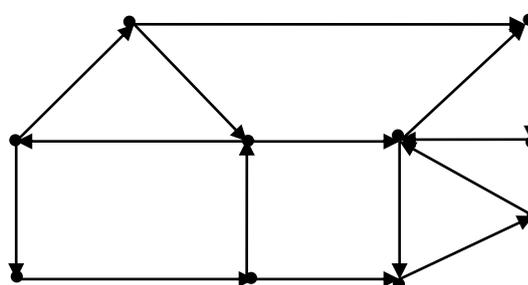
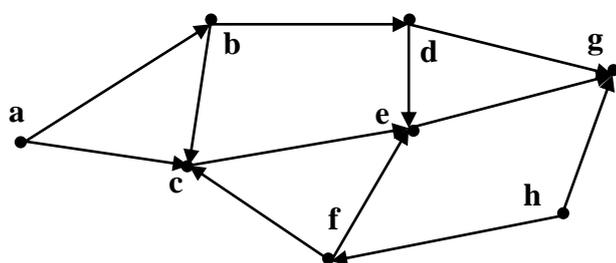
(c)



(d)

**EXERCICE N° 04**

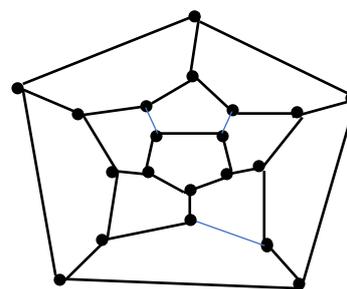
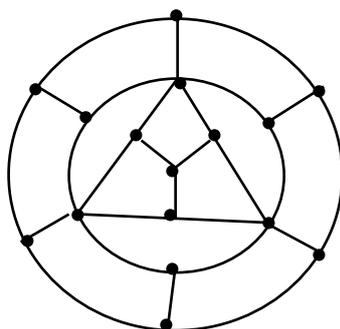
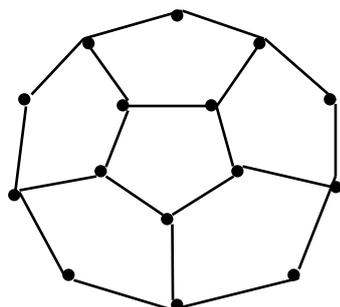
Soient  $G_1(X_1, U_1)$ ,  $G_2(X_2, U_2)$  deux graphes orientés



- (a) – Utiliser l'algorithme de construction d'une composante simplement connexe pour déterminer la composante contenant chacun des sommets : a, d, g dans  $G_1$
- (b) – Utiliser l'algorithme de construction d'une composante fortement connexe pour déterminer la composante fortement connexe contenant chacun des sommets : b, c, f dans  $G_1$
- (c) Appliquer l'algorithme de construction d'une CFC pour trouver les CFC de : e, g, i

**Exercice 05**

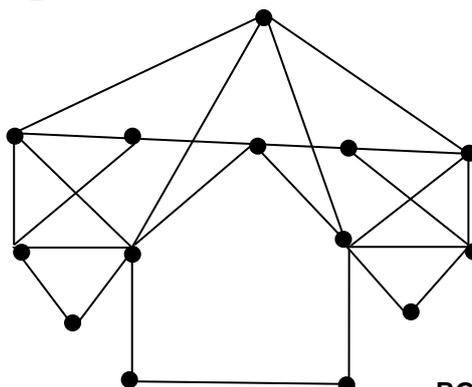
Parmi les figures ci-après, donner celle qui représente un graphe hamiltonien ?



**EXERCICE N° 06**

Trouver dans le graphe ci-après :

- a) Une chaîne hamiltonienne
- b) Un cycle hamiltonien
- c) Une chaîne eulerienne
- d) Un cycle eulerien



**BONNE COURAGE**