NOM :_____ Exercice n°1

1.1 *Cochez la bonne réponse*

☐ Parce qu'elle rend le système hyperstatique

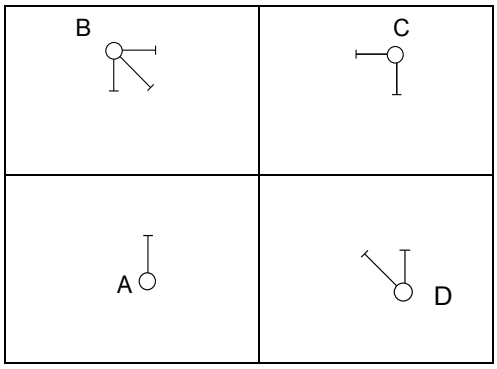
☐ Parce que sa charge critique de flambement est négligeable devant les autres efforts

☐ Parce qu'elle ne travaille pas en compression

1.2

X_A =	KN
Y_A =	KN
X_D =	KN
Y_D =	KN

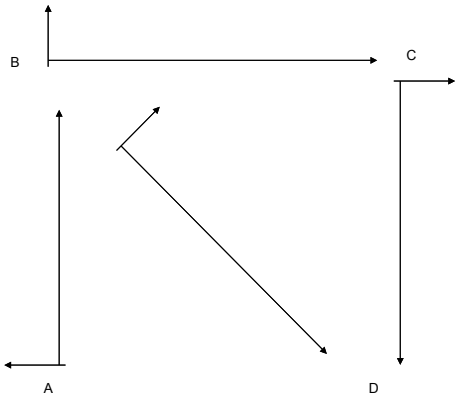
1.3



1.4

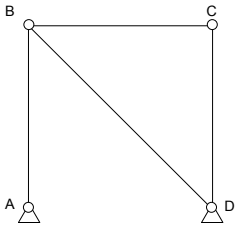
Elément	Traction en KN	Compression en KN
A-B		
B-C		
C-D		
B-D		

1.5



1.61

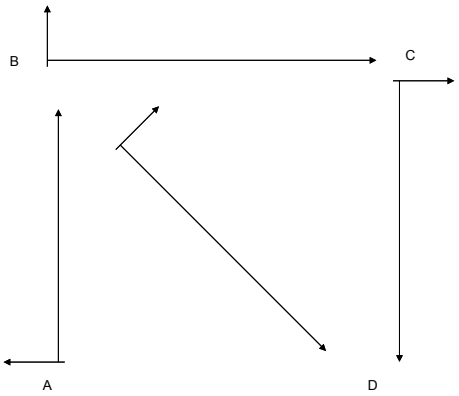
Système unitaire compatible avec le déplacement.



1.62

X_A =	KN
Y_A =	KN
X_D =	KN
Y_D =	KN

1.63



1.64 Relation littérale :

1.65

U_B = mm

NOM :_____ Exercice n°2

2.1 Degrés de stabilité

2.2 relations d'équilibre littérales

/X **= 0**

/Y **= 0**

/Z_{en} **= 0**

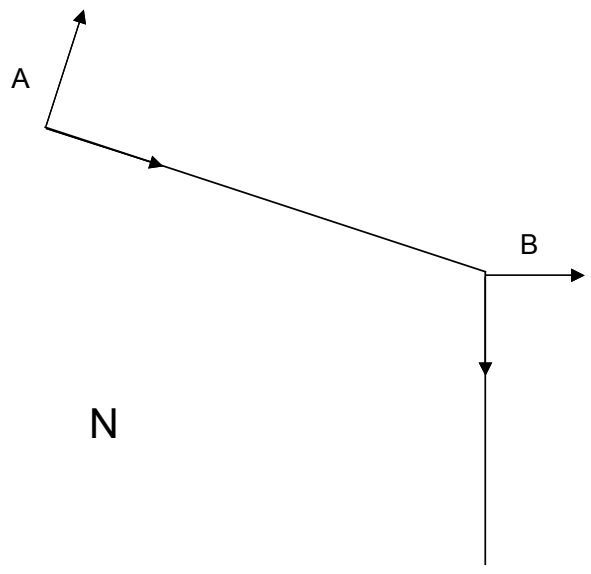
/Z_{en} **= 0**

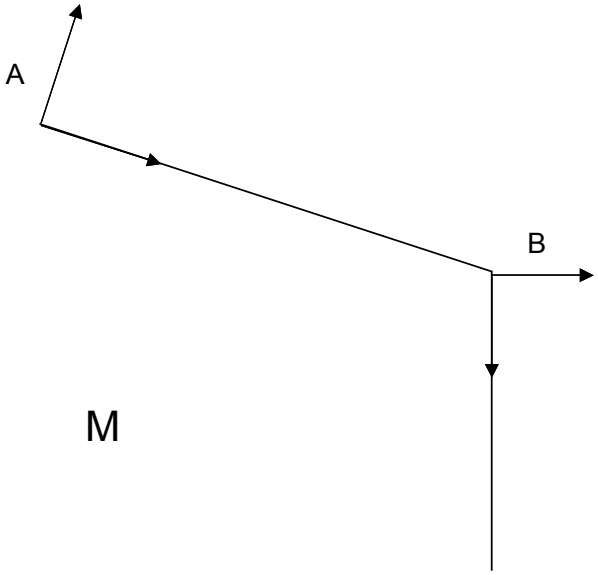
2.3 Résolution

2.4 résultats numériques

X_A =	KN
Y_A =	KN
X_C =	KN
Y_C =	KN

2.5





NOM :_____ Exercice n°3

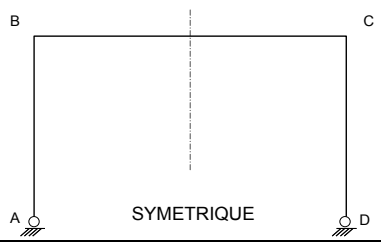
3.1

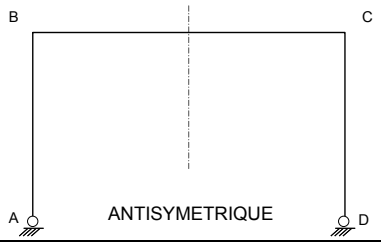
W_i =

W_e =

W =

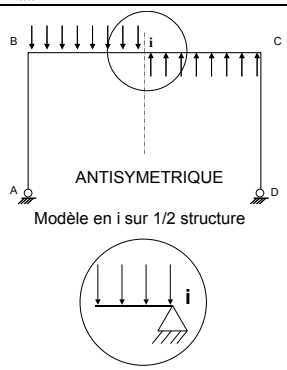
3.2





3.31

Propriétés des efforts intérieurs d'un système antisymétrique



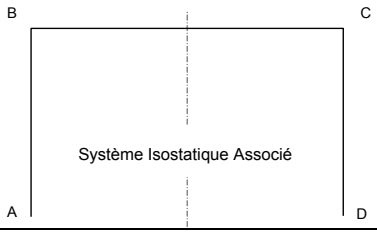
Justification de la modélisation.

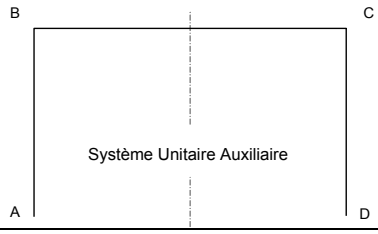
3.32

X_A = daN Y_A = daN

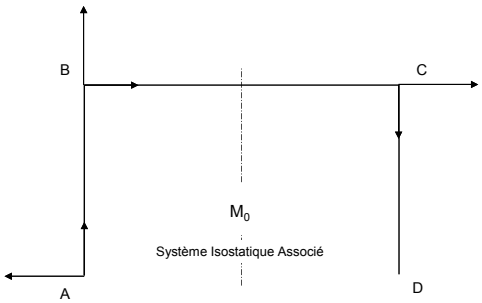
X_D = daN Y_D = daN

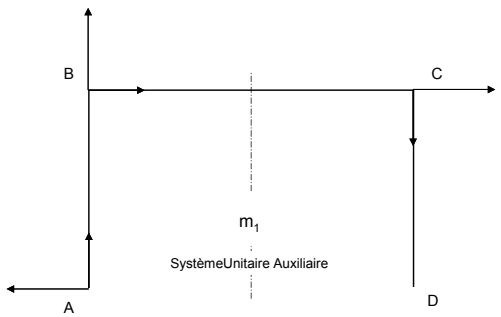
3.41





3.42





3.43

3.44 Formes intégrales

Δ_{10} =

δ_{11} =

3.45 Valeurs numériques

Δ_{10} =

δ_{11} =

3.46

X_1 = daN

3.47 Dans le système symétrique

/X _____ = 0

/Y _____ = 0

/Z_{en} _____ = 0

X_A = daN

Y_A = daN

X_D = daN

Y_D = daN

3.2 Dans le système initial

X_A = daN

Y_A = daN

X_D = daN

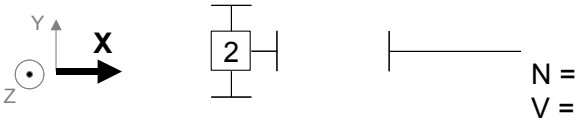
Y_D = daN

NOM :_____ Exercice n°4

4.1 Repères locaux

4.2

N =
V =
M =



N =
V =
M =

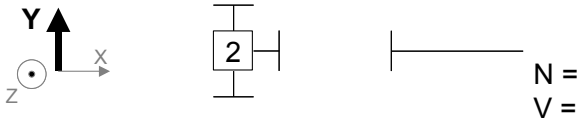
N =
V =
M =

relation d'équilibre sur X

= 0

4.3

N =
V =
M =



N =
V =
M =

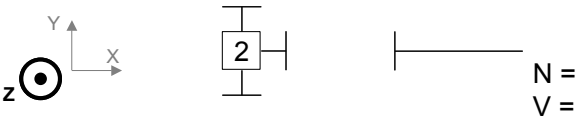
N =
V =
M =

relation d'équilibre sur Y

= 0

4.4

N =
V =
M =



N =
V =
M =

N =
V =
M =

relation d'équilibre sur Z

= 0