# TD01 MDS U44-2023-2024

**Exercice 1 :**

Calculer les réactions d'appuis, les efforts tranchants, les moments fléchissants et construire les diagrammes de **M** et **T** pour les poutres suivantes :

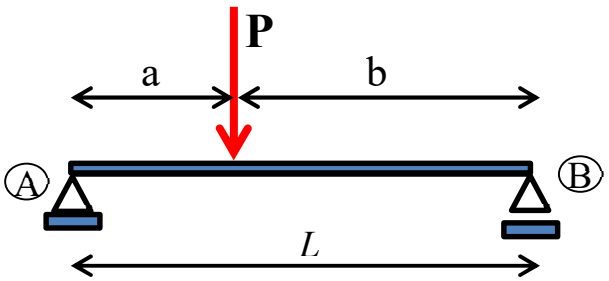


**Fig. 1.1**

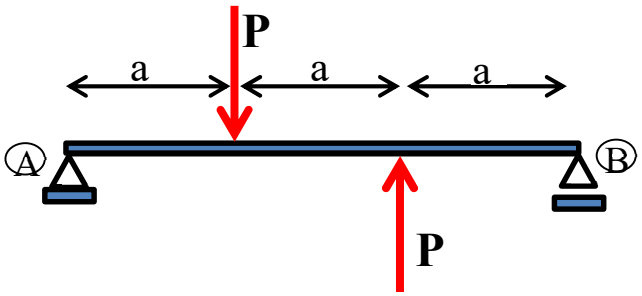


**Fig. 1.2**

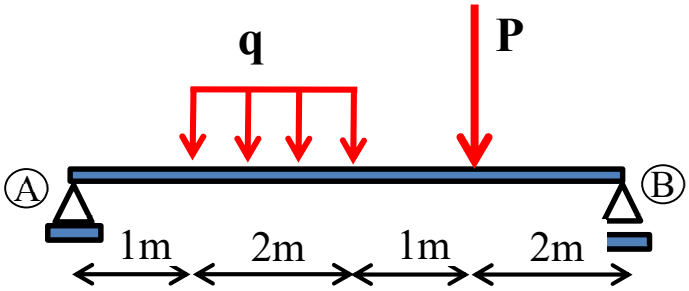


**Fig. 1.3** (q=10 kN/m, P=100 kN)

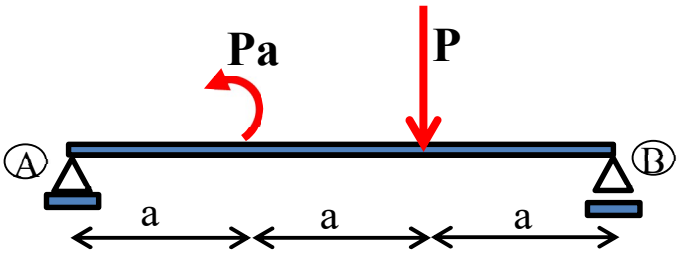


**Fig. 1.4** (a=2 m, P=100 kN)

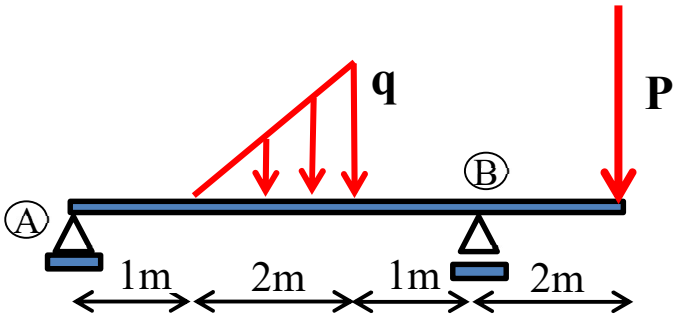


**Fig. 1.5** (q=50 kN, P=100 kN)

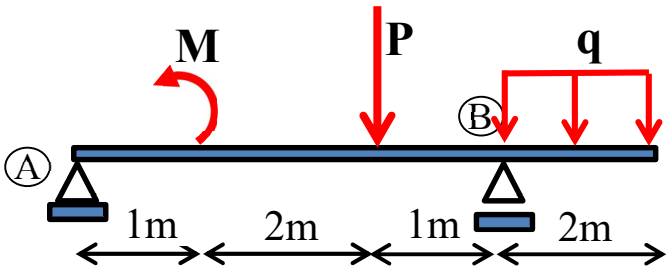


**Fig. 1.6** (q=10 kN/m, P=100 kN, M=50 kN.m)

## Exercice 2 :

Construire les épures de **M**, **N** et **T** pour les cadres plans suivants :

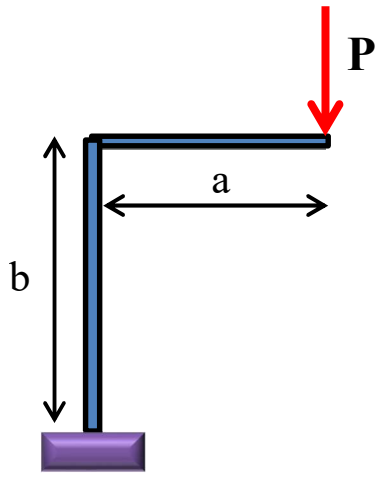


**Fig. 1.7** (a=2 m, b=4 m, P=100 kN)

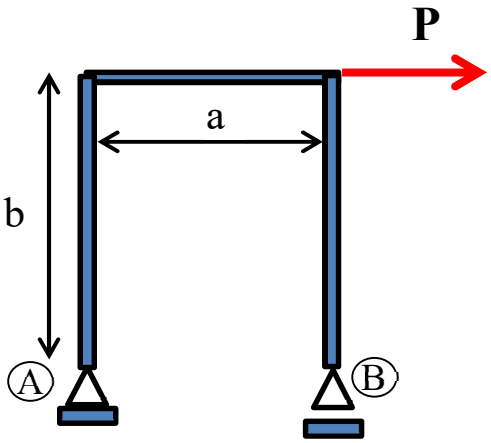


**Fig. 1.8** (a=2 m, b=4 m, P=100 kN)

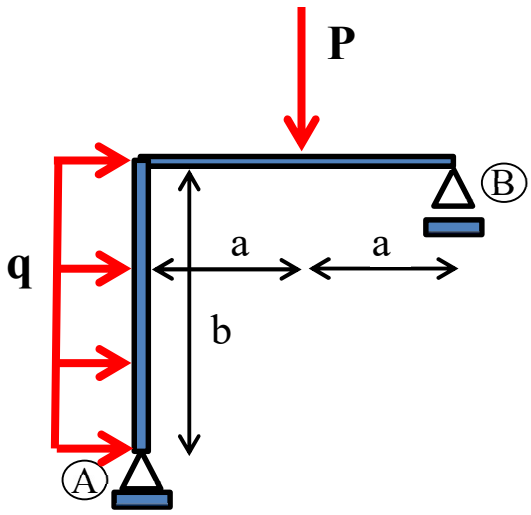


**Fig. 1.9** (a=2 m, b=4 m, q=10 kN/m, P=100 kN)

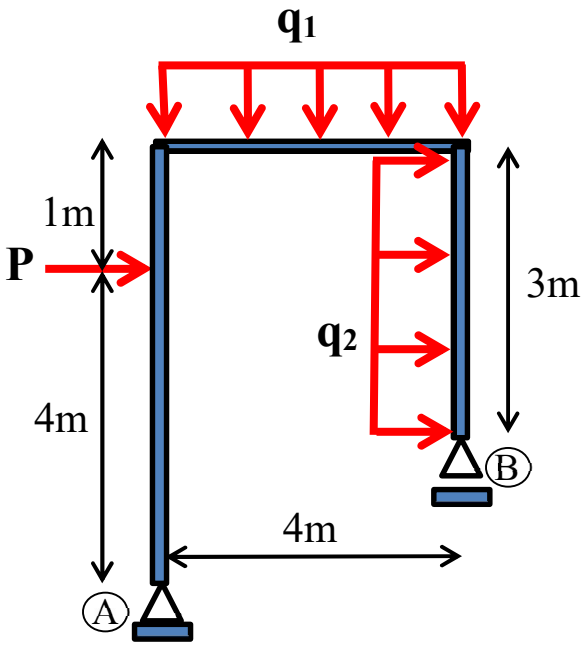


**Fig. 1.10** ($q_1$=20 kN/m, $q_2$=10 kN/m, P=100 kN)