# Semaine 1
# QCMs

## ME-332 – Mécanique Vibratoire

École
polytechnique
fédérale
de Lausanne

# Before we start… let's connect!

- Smartphones
  - iPhone
  - Android

  } Download and install the app "*PointSolutions*"

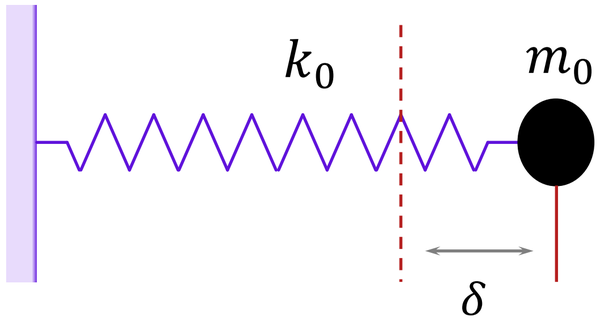
pointsolutions
powered by echo360

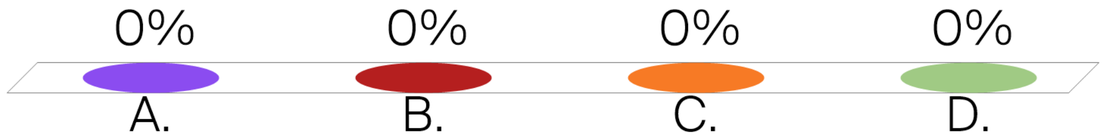
- Computers (or Windows Phones)
  - Go to www.responseware.eu

- Choose **EUROPE Server** (if asked)
- Join session – **ME332**
- When asked – **do not input your name. Enter as anonymous.**

# Après lâcher la masse, elle va...

A. Revenir lentement au point de repos pour le ressort (équilibre)
B. Bouger pour quelque temps et après s'arrêter à cause de la friction
C. Bouger harmoniquement forever
D. On ne peut pas savoir



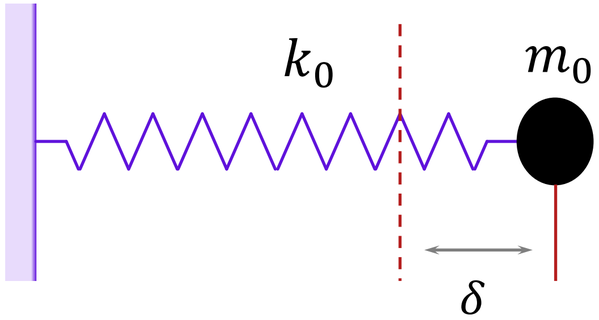
# À quelle fréquence va la masse bouger?

A. Elle ne bouge pas à aucune fréquence

B. $\frac{k_0}{m_0}$

C. $\sqrt{\frac{k_0}{m_0}}$

D. On ne peut pas savoir




# Valeur de $\omega_0$?

A. $\omega_0 = mg/\theta$

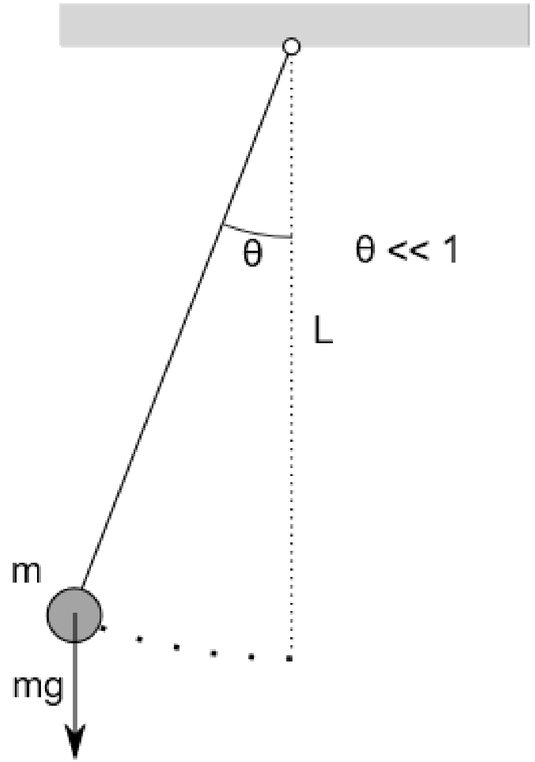
B. $\omega_0 = \sqrt{mg/\theta}$

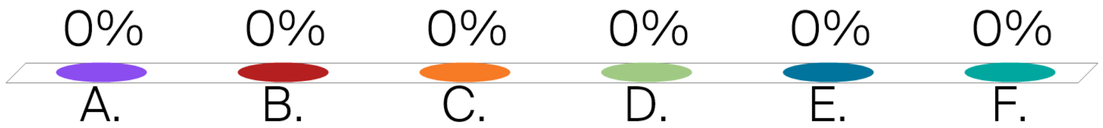
C. $\omega_0 = \sqrt{mg/L}$

D. $\omega_0 = mg/L$

E. $\omega_0 = \sqrt{g/L}$

F. $\omega_0 = g/L$



# Ranger de plus petit à plus grand pour $\omega_0$?

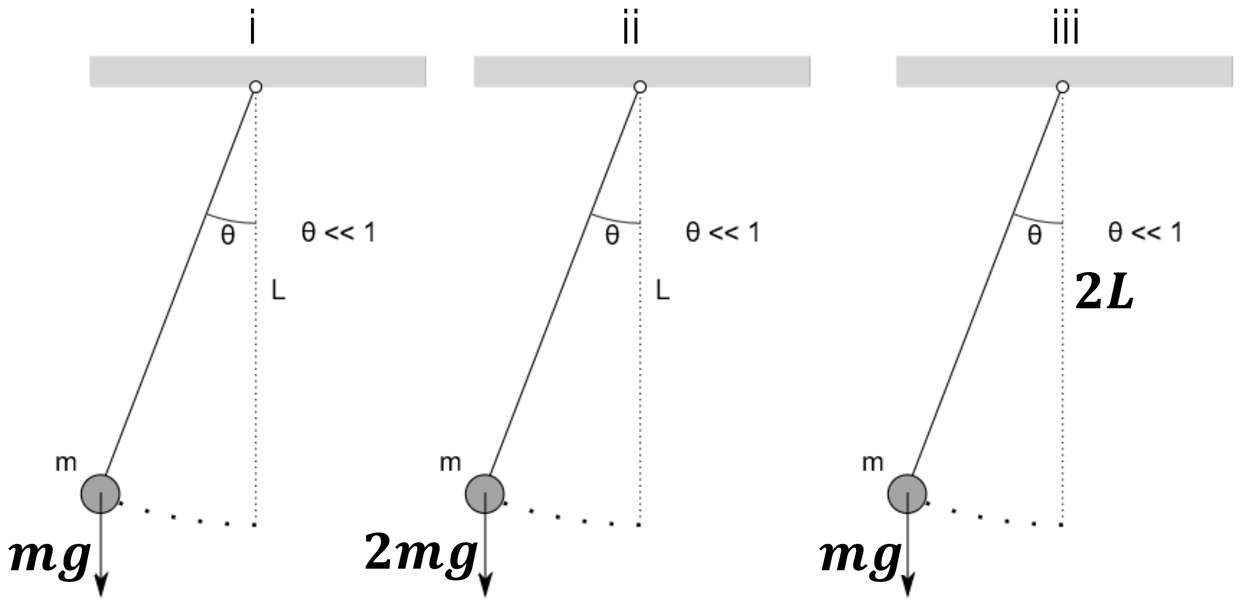


A. $\omega_{0,i} < \omega_{0,ii} < \omega_{0,iii}$

B. $\omega_{0,ii} < \omega_{0,i} < \omega_{0,iii}$

C. $\omega_{0,iii} < \omega_{0,i} < \omega_{0,ii}$

D. $\omega_{0,iii} < \omega_{0,i} = \omega_{0,ii}$



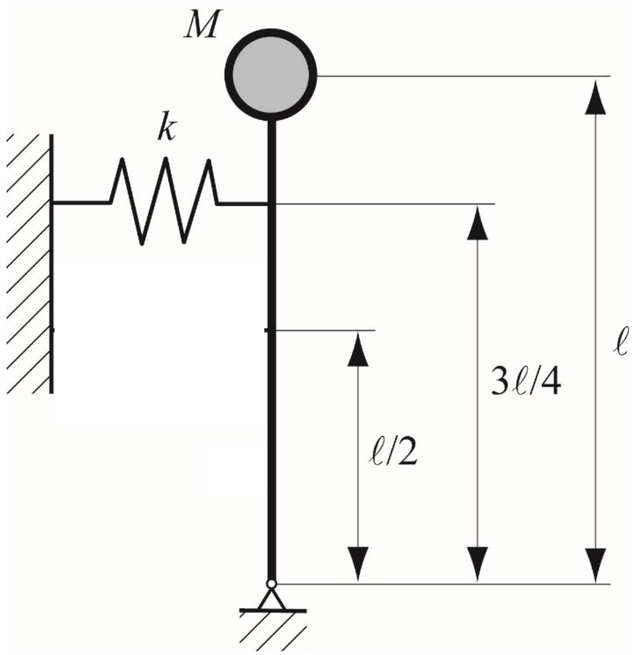

# Fréquence $\omega_0$?

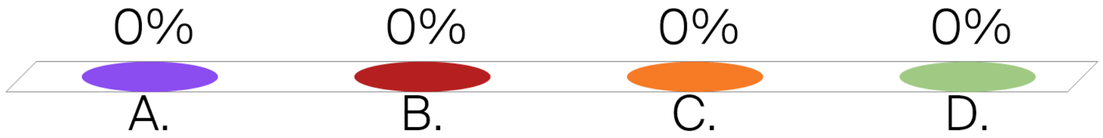
A. $\omega_0 = \sqrt{k/M}$

B. $\omega_0 = 3/4\sqrt{k/M}$

C. $\omega_0 = \sqrt{k}/M$

D. $\omega_0 = \sqrt{3\,k/M}$



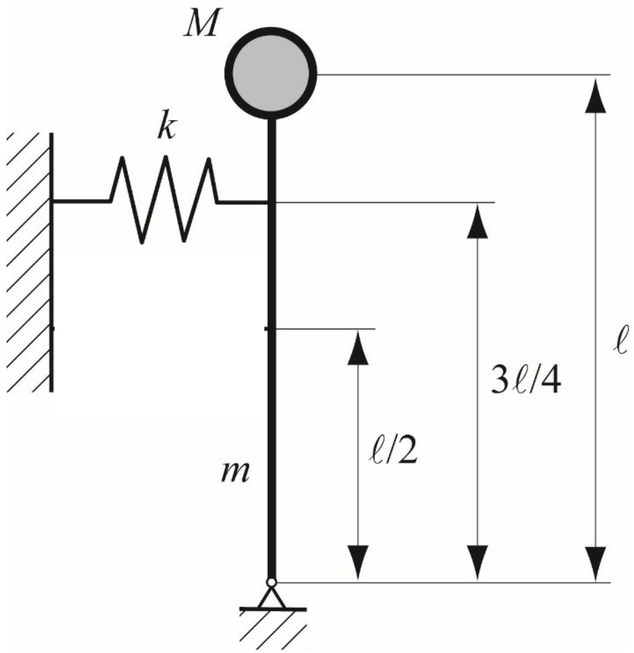
# Fréquence $\omega_0$?

A. $\omega_0 = \sqrt{k/(M+m)}$

B. $\omega_0 = 3/4\sqrt{k/(M+3m)}$

C. $\omega_0 = \sqrt{k/(M+m/3)}$

D. $\omega_0 = 3/4\sqrt{k/(M+m/3)}$



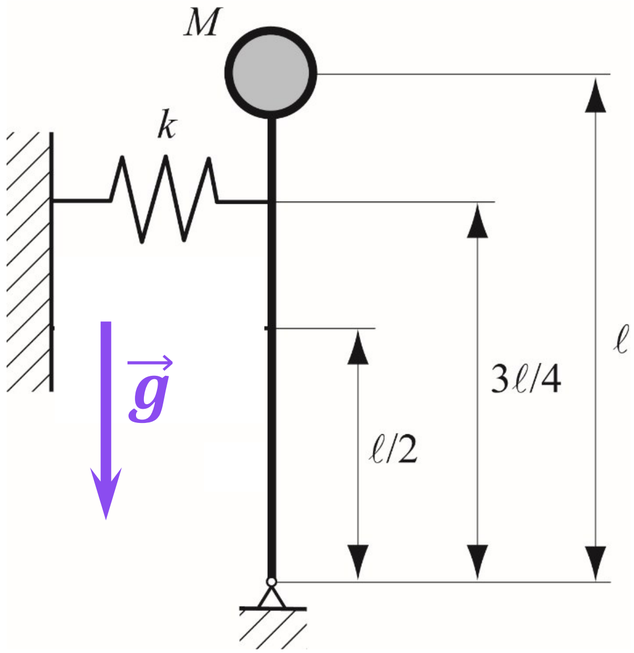

# Fréquence $\omega_0$?

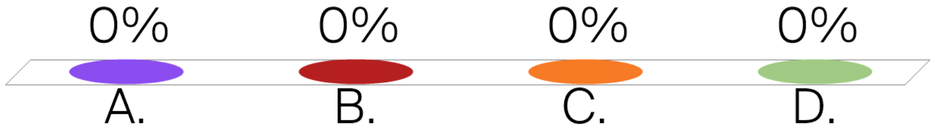
A. $\omega_0 = \sqrt{k/M}$

B. $\omega_0 = 3/4\sqrt{k/M}$

C. $\omega_0 = \sqrt{{}^{9}/_{16}\,{}^{k}/_{M} + g/L}$

D. $\omega_0 = \sqrt{{}^{3}/_{4}\,{}^{k}/_{M} + g/L}$



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