**PERIODO Y LONGITUD**

 ***Vamos a variar la longitud manteniendo constante la masa.***

***Utiliza amplitudes de oscilación que no sean mayores de 250.***

* Abre el laboratorio virtual: [**https://phet.colorado.edu/es/simulation/pendulum-lab**](https://phet.colorado.edu/es/simulation/pendulum-lab)
* ***Selecciona un valor de la masa*** (por ejemplo: 0,10 kg) y ***mantenlo invariable*** durante toda la experiencia.
* ***Varía la longitud desde 0,15 m hasta 0,30 m de 0,05 m en 0,05 m y, a partir de ahí, hasta 0,90 m, de 0,10 m en 0,10 m*** (diez medidas en total).
* ***Aparta el péndulo 250 de su posición de equilibrio, como máximo***, y déjalo oscilar.
* Utiliza el cronómetro para medir el tiempo. Con el fin de disminuir el error ***cuenta el tiempo que tarda el péndulo en dar 5 oscilaciones.***
* ***Para cada valor de la longitud realiza la medición cinco veces***. El valor final del periodo se calcula haciendo la media de las cinco observaciones y dividiendo el valor obtenido por 5 para calcular el tiempo que tarda en dar 1 oscilación.
* ***Recoge los datos*** de forma ordenada en una tabla.

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| **Masa (kg):** | **Amplitud (grados):** | **No oscilaciones:** |

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* Para procesar los datos utiliza la hojas de cálculo colgada en FisQuiWeb:

 <https://fisquiweb.es/Pendulo/HojaPendulo.xls>.

* Anota la ecuación que te proporciona la hoja en la pestaña ***Graf L-T:***



**Anotar**

* A la vista de los resultados obtenidos ***extrae conclusiones.***
* ***Prepara un informe*** con los datos obtenidos y las conclusiones extraídas.