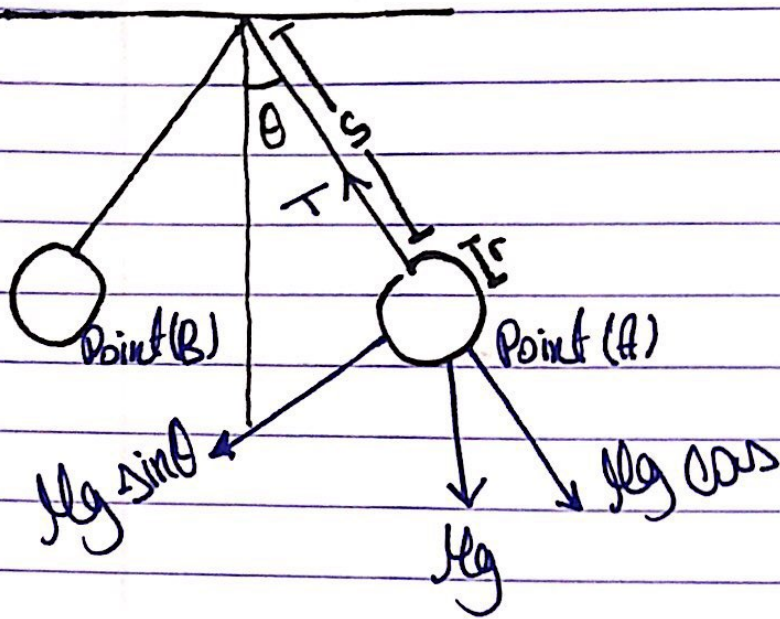


Exp 7, Measuring of gravity at BZU:



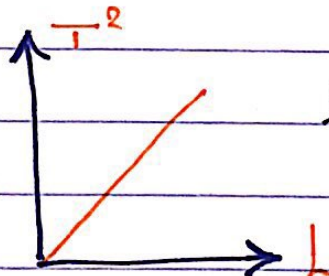
$$l = \frac{S + d}{2} \rightarrow \text{القطر}$$

when θ is small
 $\sin \theta \approx \theta$

$$T(\text{period}) = 2\pi \sqrt{\frac{l}{g}}$$

at y-axis $\frac{T^2}{g} = \frac{4\pi^2}{g} \times l$ at x-axis, $\text{slope} = \frac{4\pi^2}{g}$

$$g = \frac{4\pi^2}{\text{slope}}$$



* By least square fit method *

$$\frac{\Delta g}{g} = \frac{\Delta \text{slope}}{\text{slope}}$$