

Name: _____

Date: _____

Partner: _____

Permittivity of Free Space

Submit this worksheet along with a second sheet that contains both graphs and all linest results.

Quantity	units	value	uncertainty
slope of m' vs. $V^{2/3}$ plot			
slope of T^2 vs m' plot			
Spring constant, k			
Length of plate, L			
Width of plate, W			
Permittivity of Free Space, ϵ_0			

What is the accepted value of the permittivity of free space?

In the space below, comment on your results. Do your measurements of the permittivity of free space agree with the accepted value? If not, what could be some possible reasons for the discrepancy?