

NAME, GROUP:

DATE:

working with:

MECHANICS

1. Determining the spring constant k based on elongation

Mass of one nut $m_{nut} = \dots\dots\dots$ ()

Mass of the PVC rod $m_{PVC} = \dots\dots\dots$ ()

load suspended at the spring 1.1.	z () the lowest position of the spring
1.2. unknown mass + nuts	

2. Oscillations of a spring

2.1. Determining the spring constant k based on oscillations

load	time of 10 periods ()	T ()	k ()
OPTIONAL TASK unknown mass + nuts			$m =$

2.2. Examining how the time period depends on the amplitude

amplitude ()		time of 10 periods ()
smallest		
medium		
largest		

2.3. OPTIONAL TASK: Damped oscillations

load	initial amplitude ()	time ()

3. The simple pendulum

Length of the string $L =$

Estimated error $\Delta L =$

3.1. Measuring the time period with small initial angle

time of 10 periods					
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3.2. Measuring the time period with increased initial angle

maximal angle		time of 10 periods
small		
medium		
large		

4. Torsion pendulum

Disc

	radius ()	mass ()
1.		
2.		
3.		

	T ()
box	
box + disc	
box +	
box +	
box +	