

UM-SJTU JOINT INSTITUTE
PHYSICS LABORATORY
DATA SHEET (EXERCISE 3)

Name: _____

Student ID: _____

Name: _____

Student ID: _____

Group: _____

Date: _____

NOTICE. Please remember to show the data sheet to your instructor before leaving the laboratory. The data sheet will not be accepted if the data are recorded with a pencil or modified with a correction fluid/tape. If a mistake is made in recording a datum item, cancel the wrong value by drawing a fine line through it, record the correct value legibly, and ask your instructor to confirm the correction. Please remember to take a record of the precision of the instruments used. You are required to hand in the original data with your lab report, so please keep the data sheet properly.

spring 1 [] \pm []		spring 2 [] \pm []		series [] \pm []	
L_0		L_0		L_0	
L_1		L_1		L_1	
L_2		L_2		L_2	
L_3		L_3		L_3	
L_4		L_4		L_4	
L_5		L_5		L_5	
L_6		L_6		L_6	

Table 1. Spring constant measurement data.

Instructor's signature: _____

ten periods $[\text{---}] \pm \text{---} [\text{---}]$					
horizontal		incline 1		incline 2	
m_1		m_1		m_1	
m_2		m_2		m_2	
m_3		m_3		m_3	
m_4		m_4		m_4	
m_5		m_5		m_5	
m_6		m_6		m_6	

Table 2. Measurement data for the T vs. M relation.

$A [\text{---}] \pm \text{---} [\text{---}]$	ten periods $[\text{---}] \pm \text{---} [\text{---}]$
1	
2	
3	
4	
5	
6	

Table 3. Data for the T vs. A relation.

$A [\text{---}] \pm \text{---} [\text{---}]$	$\Delta t [\text{---}] \pm \text{---} [\text{---}]$
1	
2	
3	
4	
5	
6	
$x_{\text{in}} [\text{---}] \pm \text{---} [\text{---}]$	$x_{\text{out}} [\text{---}] \pm \text{---} [\text{---}]$

Table 4. Data for the v_{max}^2 vs. A^2 relation.

Instructor's signature: _____

m [] \pm [] []	
1	
2	
3	
4	
5	
6	

Table 5. Weight measurement data.

object with I-shape m_{obj} [] \pm [] []
object with U-shape m_{obj} [] \pm [] []
mass of spring 1 m_{spr1} [] \pm [] []
mass of spring 2 m_{spr2} [] \pm [] []
equivalent mass $M_0 = m_{\text{obj}} + \frac{1}{3}m_{\text{spr1}} + \frac{1}{3}m_{\text{spr2}}$ []

Table 6. Mass measurement data.

Instructor's signature: _____