

UM-SJTU JOINT INSTITUTE
PHYSICS LABORATORY
DATA SHEET (EXERCISE 2)

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Group: 14

Date: 7/19


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.

distance x [mm] \pm 0.5 [mm]					
$x_{A,1}$	57	$x_{B,1}$	178	S_1	121
$x_{A,2}$	58	$x_{B,2}$	178	S_2	120
$x_{A,3}$	57	$x_{B,3}$	178	S_3	121

Table 1. Distance measurement data.

time t [s] \pm 0.01 [s]	
t_1	5.67 5.67
t_2	5.71
t_3	5.74
t_4	5.74
t_5	5.71
t_6	5.74

Table 2. Time measurement data.

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diameter d [mm] ± 0.005 [mm]			
d_1	1.99	d_6	1.99
d_2	1.99	d_7	2.00
d_3	2.00	d_8	1.99
d_4	1.99	d_9	1.99
d_5	1.99	d_{10}	1.99

Table 3. Measurement data for the diameters of the balls.

diameter D [mm] ± 0.02 [mm]	
D_1	62.88 63.08
D_2	63.00
D_3	63.12
D_4	63.10
D_5	63.12
D_6	63.06

Table 4. Measurement data for the inner diameter of the flask.

density of the castor oil ρ_1	0.955	± 0.0005	[g/cm ³]
mass of 40 metal balls m	1.317	± 0.001	[g]
temperature in the lab T	28.2	± 0.1	[°C]
acceleration due to gravity in the lab g	9.81		[m/s ²]

Table 5. Values of other physical quantities.

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