

The University of the State of New York

REGENTS HIGH SCHOOL EXAMINATION

**PHYSICAL SETTING
PHYSICS**

ANSWER SHEET

Student Lucy Proven Sex: Male Female Grade

Teacher School

Record your answers to Part A and Part B-1 on this answer sheet.

Part A

- 1 2
- 2 3
- 3 4
- 4 1
- 5 3
- 6 3
- 7 2
- 8 4

Part A Score

Part B-1

- 9 1
- 10 2
- 11 2

Part B-1 Score

Write your answers to Part B-2 and Part C in your answer booklet.

The declaration below should be signed when you have completed the examination.

I do hereby affirm, at the close of this examination, that I had no unlawful knowledge of the questions or answers prior to the examination and that I have neither given nor received assistance in answering any of the questions during the examination.

Signature

**PHYSICAL SETTING
 PHYSICS**

ANSWER BOOKLET

Part	Maximum Score	Student Score
A	8	
B-1	3	
B-2	3	
C	8	
Total Written Test Score (Maximum Raw Score: 85)		
Final Score (From Conversion Chart)		
Raters' Initials:		
Rater 1		Rater 2

Student Sex: Male
 Female
 Teacher
 School Grade

Answer all questions in Part B-2 and Part C. Record your answers in this booklet.

Part B-2

12

Horizontal Displacement

Time

$\tan \theta = \frac{\text{opp}}{\text{adj}}$

13-14

$\sin \theta = \frac{v_y}{v}$

$\sin 30^\circ = \frac{v_y}{13 \text{ m/s}}$

$(13 \text{ m/s})(\sin 30^\circ) = v_y$

$7.0 \text{ m/s} = v_y$

$v_f = v_i + at$

$7.0 \frac{\text{m}}{\text{s}} = 7.0 \frac{\text{m}}{\text{s}} + (-9.81 \frac{\text{m}}{\text{s}^2})t$

$-13 \text{ m} = -9.81 \frac{\text{m}}{\text{s}^2} t$

$1.33 \text{ s} = t$

For Ra
 Only

12

13

14

Part C

15 16 m/s

16 4.91 m/s

17 $v_i = 4.91 \text{ m/s}$ $d = ?$ $d = v_i t + \frac{1}{2} a t^2$

$a = -9.81 \frac{\text{m}}{\text{s}^2}$

$t = .5 \text{ s}$

$$d = (4.91 \frac{\text{m}}{\text{s}})(.5 \text{ s}) + \frac{1}{2}(-9.81 \frac{\text{m}}{\text{s}^2})(.5 \text{ s})^2$$

$$d = 3.67 \text{ m}$$

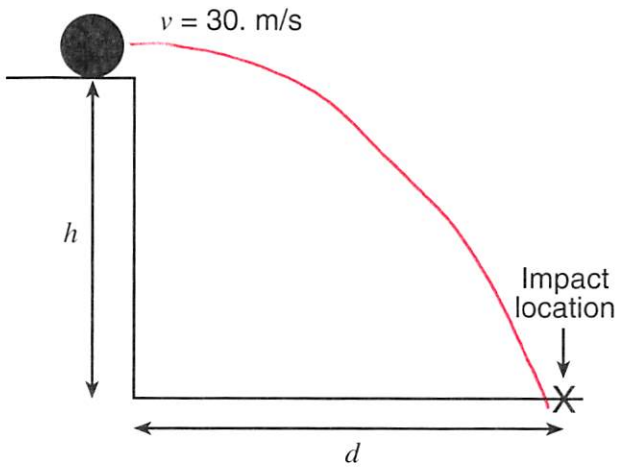
For Raters Only

15

16

17

18



19

$$v = 30 \frac{\text{m}}{\text{s}}$$

$$t = 2.5 \text{ s}$$

$$v = \frac{d}{t} \quad 30 \frac{\text{m}}{\text{s}} = \frac{d}{2.5 \text{ s}}$$

$$d = 75 \text{ m}$$

20

$$d = v_i t + \frac{1}{2} a t^2$$

$$d = \frac{1}{2} a t^2$$

18

19

20

$$2(h) = (\frac{1}{2} a t^2) \sim$$

$$\frac{2h}{a} = \frac{a t^2}{a}$$

$$\sqrt{\frac{2h}{a}} = \sqrt{t^2}$$

$$\sqrt{\frac{2h}{g}} = t$$

$$\sqrt{\frac{2d}{a}} = t$$

21



22



21-22

Horizontal dist differences

time in Air motion

