newfoundland | Grade 12

Physics 3204 Public Exam

Practice set 1 Student booklet

In this practice exam · 3 hours in all

1	**Part I: Selected Response**	50 questions
2	**Part II: Constructed Response**	12 questions

Before you start

- You have 3 hours to finish.
- You may use an approved calculator.
- Use the reference pages whenever you need them.
- In the written questions, show your work.

Your initials or class number
Not your student number

_____



Finished? Ask an adult to photograph your pages.
MapleMind marks them and shows what to practise next.

Sample

Part I: Selected Response

Questions 1 to 50

1 A ball rolls horizontally off a platform. Ignore air resistance and use $g = 9.8\ \text{m/s}^2$. The table gives the platform height and the ball's horizontal speed. How far from the platform's base does the ball land?

Ball leaving a platform

Quantity	Value
Platform height	20.0 m
Horizontal speed	6.0 m/s

- ◯ **A** 6.0 m
- ◯ **B** 24.2 m
- ◯ **C** 8.6 m
- ◯ **D** 12.1 m

2 An inventory scanner moves at constant speed around a circular route in a grocery warehouse. The table gives its speed and the route's radius. What is the magnitude and direction of the scanner's acceleration?

Scanner motion

Quantity	Value	Unit
Speed	4.2	m/s
Radius	3.5	m

- ◯ **A** $1.2\ \text{m/s}^2$ toward the centre of the route
- ◯ **B** $5.0\ \text{m/s}^2$ toward the centre of the route
- ◯ **C** $5.0\ \text{m/s}^2$ away from the centre of the route
- ◯ **D** $17.6\ \text{m/s}^2$ toward the centre of the route

Sample

Part II: Constructed Response

Questions 51 to 62

51 A ball is launched horizontally from a library balcony. Ignore air resistance and use $g = 9.8\ \text{m/s}^2$. Show your equations and substitutions. Calculate the ball's time in the air and its horizontal range, using three significant figures and including units.

Launch data

Quantity	Value
Height	18.0 m
Horizontal velocity	12.0 m/s

Show your work

Sample

Answer key

Practice set 1. Add up the marks on the score sheet, page 10.

Part I: Selected Response

1 mark each · 50 marks

No.	Answer	Mark	What it tests	Page
1	[illegible]	1	Unit 1: Force, Motion, Energy	2
2	[illegible]	1	Unit 1: Force, Motion, Energy	2
3	[illegible]	1	Unit 1: Force, Motion, Energy	3
4	[illegible]	1	Unit 1: Force, Motion, Energy	4
5	[illegible]	1	Unit 1: Force, Motion, Energy	5
6	[illegible]	1	Unit 1: Force, Motion, Energy	6
7	[illegible]	1	Unit 1: Force, Motion, Energy	6
8	[illegible]	1	Unit 1: Force, Motion, Energy	7
9	[illegible]	1	Unit 1: Force, Motion, Energy	7
10	[illegible]	1	Unit 1: Force, Motion, Energy	8
11	[illegible]	1	Unit 1: Force, Motion, Energy	8
12	[illegible]	1	Unit 1: Force, Motion, Energy	9
13	[illegible]	1	Unit 1: Force, Motion, Energy	10
14	[illegible]	1	Unit 1: Force, Motion, Energy	11
15	[illegible]	1	Unit 1: Force, Motion, Energy	12
16	[illegible]	1	Unit 1: Force, Motion, Energy	12
17	[illegible]	1	Unit 1: Force, Motion, Energy	13
18	[illegible]	1	Unit 1: Force, Motion, Energy	13

Sample

No.	Answer	Mark	What it tests	Page
60	[redacted]	4	Unit 2: Fields	48
61	[redacted]	4	Unit 3: Matter-Energy Interface	49
62	[redacted]	4	Unit 3: Matter-Energy Interface	50

Question 52: worked answer and marks

4 marks

[redacted]

Sample

MapleMind

File 1
Start here

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Physics 3204 Public Exam

The guide for students and adults

For the student

What to expect	Page 2
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Exam day	Page 8

For the adult

How to print it, run it and mark it	Page 9
Answer keys Keep these files away from the student.	File 3

In your download

File 1	Start here (this guide)
File 2	Practice exam, Set 1
File 3	Answer key, Set 1
File 4	Reference sheet
Study plan	To your exam date, when you gave one
Code list	Who has each copy, for a class



Start with page 2, together if you can.
Your study plan is on page 5.

Sample