

PHYSICAL SCIENCES P.1

MEMO-2024



basic education

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REPUBLIC OF SOUTH AFRICA

G.12

NATIONAL
SENIOR CERTIFICATE

1 times by adding different masses to increase the hanging mass each time.
the effects of air friction.



data obtained were used to draw the sketch graph below.



length. The spring then falls to the ground.
Trolley A moves to the left, while trolley B moves to the right and then up a frictionless inclined plane, rising to a maximum vertical height of 1,5 m, as shown in the diagram below.



Ignore the rotational effects of the wheels.

- 6.1 Write down the principle of conservation of mechanical energy in words. (2)
- 6.2 Calculate the speed of trolley B at the bottom of the inclined plane. (4)
- 6.3 For the trolley that the spring forces it return to its natural length.

(4 new pages.)

is applied at an angle of 30° to the horizontal.
ly at rest, as shown in the diagram below.

on of 10 N acts on the crate as it moves from rest at point A up
point B. The distance between point A and point B is 1,5
at point B is 2 m s^{-1} .



is work done by a force.

of free-body diagram showing ALL the forces acting on the crate.

IF PRINCIPLES ONLY, calculate the magnitude of force F.

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David Baud



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Table of Contents Physical Science Paper 1 November 2010 Memo

1. Understanding the eBook Physical Science Paper 1 November 2010 Memo
 - The Rise of Digital Reading Physical Science Paper 1 November 2010 Memo
 - Advantages of eBooks Over Traditional Books
2. Identifying Physical Science Paper 1 November 2010 Memo
 - Exploring Different Genres
 - Considering Fiction vs. Non-Fiction
 - Determining Your Reading Goals
3. Choosing the Right eBook Platform
 - Popular eBook Platforms
 - Features to Look for in an Physical Science Paper 1 November 2010 Memo
 - User-Friendly Interface
4. Exploring eBook Recommendations from Physical Science Paper 1 November 2010 Memo
 - Personalized Recommendations
 - Physical Science Paper 1 November 2010 Memo User Reviews and Ratings
 - Physical Science Paper 1 November 2010 Memo and Bestseller Lists
5. Accessing Physical Science Paper 1 November 2010 Memo Free and Paid eBooks

- Physical Science Paper 1 November 2010 Memo Public Domain eBooks
 - Physical Science Paper 1 November 2010 Memo eBook Subscription Services
 - Physical Science Paper 1 November 2010 Memo Budget-Friendly Options
6. Navigating Physical Science Paper 1 November 2010 Memo eBook Formats
- ePub, PDF, MOBI, and More
 - Physical Science Paper 1 November 2010 Memo Compatibility with Devices
 - Physical Science Paper 1 November 2010 Memo Enhanced eBook Features
7. Enhancing Your Reading Experience
- Adjustable Fonts and Text Sizes of Physical Science Paper 1 November 2010 Memo
 - Highlighting and Note-Taking Physical Science Paper 1 November 2010 Memo
 - Interactive Elements Physical Science Paper 1 November 2010 Memo
8. Staying Engaged with Physical Science Paper 1 November 2010 Memo
- Joining Online Reading Communities
 - Participating in Virtual Book Clubs
 - Following Authors and Publishers Physical Science Paper 1 November 2010 Memo
9. Balancing eBooks and Physical Books Physical Science Paper 1 November 2010 Memo
- Benefits of a Digital Library
 - Creating a Diverse Reading Collection Physical Science Paper 1 November 2010 Memo
10. Overcoming Reading Challenges
- Dealing with Digital Eye Strain
 - Minimizing Distractions
 - Managing Screen Time
11. Cultivating a Reading Routine Physical Science Paper 1 November 2010 Memo
- Setting Reading Goals Physical Science Paper 1 November 2010 Memo
 - Carving Out Dedicated Reading Time
12. Sourcing Reliable Information of Physical Science Paper 1 November 2010 Memo
- Fact-Checking eBook Content of Physical Science Paper 1 November 2010 Memo
 - Distinguishing Credible Sources
13. Promoting Lifelong Learning
- Utilizing eBooks for Skill Development

- Exploring Educational eBooks

14. Embracing eBook Trends

- Integration of Multimedia Elements
- Interactive and Gamified eBooks

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