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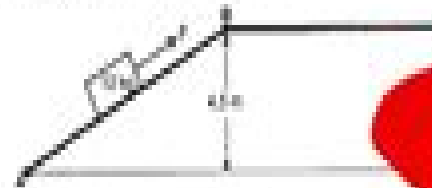
Department
Basic Education
REPUBLIC OF SOUTH AFRICA

FULL MEMORANDUM GRADE 12 PHYSICS 2022 FINAL

This question paper consists of 18 pages and 3 data sheets.

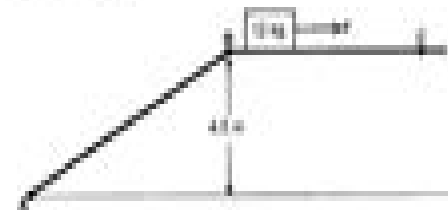
(QUESTION 6 (Start on a new page.)

A 12 kg block is initially at rest at point A at the bottom of a ROUGH inclined plane. The block is pulled up the incline by a constant force F acting parallel to the incline. The block reaches point B, which is at a vertical height of 4.0 m above the horizontal, with a speed of 3.00 m/s. See the diagram below.



- 6.1 Define the term non-conservative force.
- 6.2 Draw a labelled free-body diagram for the block when it is pulled up the incline.
- 6.3 Calculate the total work done on the block by the NON-CONSERVATIVE forces when the block moves from point A to point B. (4)

The same constant force F now moves the block at a CONSTANT VELOCITY across a rough horizontal surface from point B to point C, as shown below. Force F acts parallel to the horizontal surface.



The magnitude of the constant frictional force acting on the block while moving from point B to point C is 40 N, 40% greater than the magnitude of the constant frictional force acting on the block when it moves from point A to point B.

- 6.4 Calculate the distance from point A to point B. (5)

(10)

Physical Science Paper1 June 2013 Memorandum

Terry C. Jones



Physical Science Paper1 June 2013 Memorandum:

The Top Books of the Year Physical Science Paper1 June 2013 Memorandum The year 2023 has witnessed a noteworthy surge in literary brilliance, with numerous compelling novels captivating the hearts of readers worldwide. Lets delve into the realm of top-selling books, exploring the captivating narratives that have captivated audiences this year. The Must-Read : Colleen Hoover's "It Ends with Us" This touching tale of love, loss, and resilience has gripped readers with its raw and emotional exploration of domestic abuse. Hoover masterfully weaves a story of hope and healing, reminding us that even in the darkest of times, the human spirit can succeed. Physical Science Paper1 June 2013 Memorandum : Taylor Jenkins Reids "The Seven Husbands of Evelyn Hugo" This captivating historical fiction novel unravels the life of Evelyn Hugo, a Hollywood icon who defies expectations and societal norms to pursue her dreams. Reids compelling storytelling and compelling characters transport readers to a bygone era, immersing them in a world of glamour, ambition, and self-discovery. Physical Science Paper1 June 2013 Memorandum : Delia Owens "Where the Crawdads Sing" This captivating coming-of-age story follows Kya Clark, a young woman who grows up alone in the marshes of North Carolina. Owens spins a tale of resilience, survival, and the transformative power of nature, entrancing readers with its evocative prose and mesmerizing setting. These top-selling novels represent just a fraction of the literary treasures that have emerged in 2023. Whether you seek tales of romance, adventure, or personal growth, the world of literature offers an abundance of compelling stories waiting to be discovered. The novel begins with Richard Papen, a bright but troubled young man, arriving at Hampden College. Richard is immediately drawn to the group of students who call themselves the Classics Club. The club is led by Henry Winter, a brilliant and charismatic young man. Henry is obsessed with Greek mythology and philosophy, and he quickly draws Richard into his world. The other members of the Classics Club are equally as fascinating. Bunny Corcoran is a wealthy and spoiled young man who is always looking for a good time. Charles Tavis is a quiet and reserved young man who is deeply in love with Henry. Camilla Macaulay is a beautiful and intelligent young woman who is drawn to the power and danger of the Classics Club. The students are all deeply in love with Morrow, and they are willing to do anything to please him. Morrow is a complex and mysterious figure, and he seems to be manipulating the students for his own purposes. As the students become more involved with Morrow, they begin to commit increasingly dangerous acts. The Secret History is a brilliant and thrilling novel that will keep you wondering until the very end. The novel is a cautionary tale about the dangers of obsession and the power of evil.

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Table of Contents Physical Science Paper1 June 2013 Memorandum

1. Understanding the eBook Physical Science Paper1 June 2013 Memorandum
 - The Rise of Digital Reading Physical Science Paper1 June 2013 Memorandum
 - Advantages of eBooks Over Traditional Books
2. Identifying Physical Science Paper1 June 2013 Memorandum
 - 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 Paper1 June 2013 Memorandum
 - User-Friendly Interface
4. Exploring eBook Recommendations from Physical Science Paper1 June 2013 Memorandum
 - Personalized Recommendations
 - Physical Science Paper1 June 2013 Memorandum User Reviews and Ratings
 - Physical Science Paper1 June 2013 Memorandum and Bestseller Lists
5. Accessing Physical Science Paper1 June 2013 Memorandum Free and Paid eBooks
 - Physical Science Paper1 June 2013 Memorandum Public Domain eBooks
 - Physical Science Paper1 June 2013 Memorandum eBook Subscription Services
 - Physical Science Paper1 June 2013 Memorandum Budget-Friendly Options
6. Navigating Physical Science Paper1 June 2013 Memorandum eBook Formats
 - ePub, PDF, MOBI, and More
 - Physical Science Paper1 June 2013 Memorandum Compatibility with Devices
 - Physical Science Paper1 June 2013 Memorandum Enhanced eBook Features
7. Enhancing Your Reading Experience
 - Adjustable Fonts and Text Sizes of Physical Science Paper1 June 2013 Memorandum
 - Highlighting and Note-Taking Physical Science Paper1 June 2013 Memorandum
 - Interactive Elements Physical Science Paper1 June 2013 Memorandum
8. Staying Engaged with Physical Science Paper1 June 2013 Memorandum

- Joining Online Reading Communities
- Participating in Virtual Book Clubs
- Following Authors and Publishers Physical Science Paper1 June 2013 Memorandum
- 9. Balancing eBooks and Physical Books Physical Science Paper1 June 2013 Memorandum
 - Benefits of a Digital Library
 - Creating a Diverse Reading Collection Physical Science Paper1 June 2013 Memorandum
- 10. Overcoming Reading Challenges
 - Dealing with Digital Eye Strain
 - Minimizing Distractions
 - Managing Screen Time
- 11. Cultivating a Reading Routine Physical Science Paper1 June 2013 Memorandum
 - Setting Reading Goals Physical Science Paper1 June 2013 Memorandum
 - Carving Out Dedicated Reading Time
- 12. Sourcing Reliable Information of Physical Science Paper1 June 2013 Memorandum
 - Fact-Checking eBook Content of Physical Science Paper1 June 2013 Memorandum
 - 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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