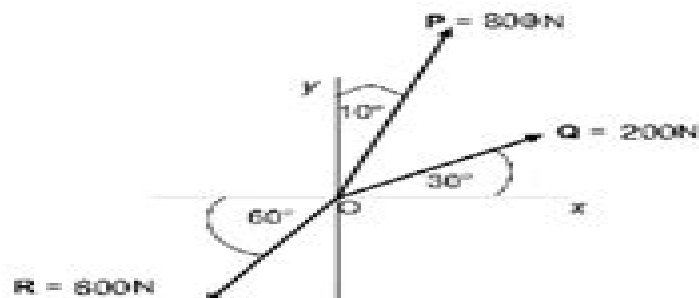


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QUESTION 2 (Start on a new page.)

Three forces, **P**, **Q** and **R**, of magnitudes 800N, 200N and 600N respectively, act on a point **O** in the directions shown in the diagram below.

The forces are NOT drawn to scale.



Determine the magnitude and direction of the resultant force by
CALCULATION

(8)
[8]

QUESTION 3 (Start on a new page.)

A constant force, **F**, pulls a 35kg block at a constant speed over a rough horizontal surface, **AB**, as shown in the diagram below. The coefficient of kinetic friction (μ_k) between the block and the surface is 0,4.



3.1 Draw a labelled free-body diagram showing ALL the forces acting on the block. (4)

3.2 State Newton's first law of motion in words. (2)

Calculate the magnitude of the:

3.3 Force **F** (6)

Physical Science Paper 1 Final Exam Grade1

Raffaela Di Napoli



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Table of Contents Physical Science Paper 1 Final Exam Grade1

1. Understanding the eBook Physical Science Paper 1 Final Exam Grade1
 - The Rise of Digital Reading Physical Science Paper 1 Final Exam Grade1
 - Advantages of eBooks Over Traditional Books
2. Identifying Physical Science Paper 1 Final Exam Grade1
 - 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 Final Exam Grade1
 - User-Friendly Interface
4. Exploring eBook Recommendations from Physical Science Paper 1 Final Exam Grade1
 - Personalized Recommendations
 - Physical Science Paper 1 Final Exam Grade1 User Reviews and Ratings
 - Physical Science Paper 1 Final Exam Grade1 and Bestseller Lists
5. Accessing Physical Science Paper 1 Final Exam Grade1 Free and Paid eBooks
 - Physical Science Paper 1 Final Exam Grade1 Public Domain eBooks
 - Physical Science Paper 1 Final Exam Grade1 eBook Subscription Services
 - Physical Science Paper 1 Final Exam Grade1 Budget-Friendly Options
6. Navigating Physical Science Paper 1 Final Exam Grade1 eBook Formats
 - ePub, PDF, MOBI, and More
 - Physical Science Paper 1 Final Exam Grade1 Compatibility with Devices
 - Physical Science Paper 1 Final Exam Grade1 Enhanced eBook Features
7. Enhancing Your Reading Experience
 - Adjustable Fonts and Text Sizes of Physical Science Paper 1 Final Exam Grade1
 - Highlighting and Note-Taking Physical Science Paper 1 Final Exam Grade1
 - Interactive Elements Physical Science Paper 1 Final Exam Grade1

8. Staying Engaged with Physical Science Paper 1 Final Exam Grade1
 - Joining Online Reading Communities
 - Participating in Virtual Book Clubs
 - Following Authors and Publishers Physical Science Paper 1 Final Exam Grade1
9. Balancing eBooks and Physical Books Physical Science Paper 1 Final Exam Grade1
 - Benefits of a Digital Library
 - Creating a Diverse Reading Collection Physical Science Paper 1 Final Exam Grade1
10. Overcoming Reading Challenges
 - Dealing with Digital Eye Strain
 - Minimizing Distractions
 - Managing Screen Time
11. Cultivating a Reading Routine Physical Science Paper 1 Final Exam Grade1
 - Setting Reading Goals Physical Science Paper 1 Final Exam Grade1
 - Carving Out Dedicated Reading Time
12. Sourcing Reliable Information of Physical Science Paper 1 Final Exam Grade1
 - Fact-Checking eBook Content of Physical Science Paper 1 Final Exam Grade1
 - 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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