



education

Department:
Education
PROVINCE OF KWAZULU-NATAL

**NATIONAL
SENIOR CERTIFICATE**

GRADE 11

PHYSICAL SCIENCES P2 (CHEMISTRY)

COMMON TEST

SEPTEMBER 2019

MARKS: 150

TIME: 3 hours

**This question paper consists of 11 pages, 3 data sheets
AND a special answer sheet.**

Physical Science Paper2 Exemplar Grade11 November 201

Roman Wölfel



Physical Science Paper2 Exemplar Grade11 November 201:

Physical Science Paper2 Exemplar Grade11 November 201 Book Review: Unveiling the Power of Words

In a world driven by information and connectivity, the power of words has become more evident than ever. They have the capacity to inspire, provoke, and ignite change. Such may be the essence of the book **Physical Science Paper2 Exemplar Grade11 November 201**, a literary masterpiece that delves deep into the significance of words and their effect on our lives. Written by a renowned author, this captivating work takes readers on a transformative journey, unraveling the secrets and potential behind every word. In this review, we shall explore the book's key themes, examine its writing style, and analyze its overall effect on readers.

<https://crm.avenza.com/files/browse/index.jsp/range%20over%20sport%202014%20user%20manual.pdf>

Table of Contents Physical Science Paper2 Exemplar Grade11 November 201

1. Understanding the eBook Physical Science Paper2 Exemplar Grade11 November 201
 - The Rise of Digital Reading Physical Science Paper2 Exemplar Grade11 November 201
 - Advantages of eBooks Over Traditional Books
2. Identifying Physical Science Paper2 Exemplar Grade11 November 201
 - 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 eBook Physical Science Paper2 Exemplar Grade11 November 201
 - User-Friendly Interface
4. Exploring eBook Recommendations from Physical Science Paper2 Exemplar Grade11 November 201
 - Personalized Recommendations
 - Physical Science Paper2 Exemplar Grade11 November 201 User Reviews and Ratings
 - Physical Science Paper2 Exemplar Grade11 November 201 and Bestseller Lists

5. Accessing Physical Science Paper2 Exemplar Grade11 November 201 Free and Paid eBooks
 - Physical Science Paper2 Exemplar Grade11 November 201 Public Domain eBooks
 - Physical Science Paper2 Exemplar Grade11 November 201 eBook Subscription Services
 - Physical Science Paper2 Exemplar Grade11 November 201 Budget-Friendly Options
6. Navigating Physical Science Paper2 Exemplar Grade11 November 201 eBook Formats
 - ePub, PDF, MOBI, and More
 - Physical Science Paper2 Exemplar Grade11 November 201 Compatibility with Devices
 - Physical Science Paper2 Exemplar Grade11 November 201 Enhanced eBook Features
7. Enhancing Your Reading Experience
 - Adjustable Fonts and Text Sizes of Physical Science Paper2 Exemplar Grade11 November 201
 - Highlighting and Note-Taking Physical Science Paper2 Exemplar Grade11 November 201
 - Interactive Elements Physical Science Paper2 Exemplar Grade11 November 201
8. Staying Engaged with Physical Science Paper2 Exemplar Grade11 November 201
 - Joining Online Reading Communities
 - Participating in Virtual Book Clubs
 - Following Authors and Publishers Physical Science Paper2 Exemplar Grade11 November 201
9. Balancing eBooks and Physical Books Physical Science Paper2 Exemplar Grade11 November 201
 - Benefits of a Digital Library
 - Creating a Diverse Reading Collection Physical Science Paper2 Exemplar Grade11 November 201
10. Overcoming Reading Challenges
 - Dealing with Digital Eye Strain
 - Minimizing Distractions
 - Managing Screen Time
11. Cultivating a Reading Routine Physical Science Paper2 Exemplar Grade11 November 201
 - Setting Reading Goals Physical Science Paper2 Exemplar Grade11 November 201
 - Carving Out Dedicated Reading Time
12. Sourcing Reliable Information of Physical Science Paper2 Exemplar Grade11 November 201
 - Fact-Checking eBook Content of Physical Science Paper2 Exemplar Grade11 November 201
 - 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

Physical Science Paper2 Exemplar Grade11 November 201 Introduction

Free PDF Books and Manuals for Download: Unlocking Knowledge at Your Fingertips In today's fast-paced digital age, obtaining valuable knowledge has become easier than ever. Thanks to the internet, a vast array of books and manuals are now available for free download in PDF format. Whether you are a student, professional, or simply an avid reader, this treasure trove of downloadable resources offers a wealth of information, conveniently accessible anytime, anywhere. The advent of online libraries and platforms dedicated to sharing knowledge has revolutionized the way we consume information. No longer confined to physical libraries or bookstores, readers can now access an extensive collection of digital books and manuals with just a few clicks. These resources, available in PDF, Microsoft Word, and PowerPoint formats, cater to a wide range of interests, including literature, technology, science, history, and much more. One notable platform where you can explore and download free Physical Science Paper2 Exemplar Grade11 November 201 PDF books and manuals is the internet's largest free library. Hosted online, this catalog compiles a vast assortment of documents, making it a veritable goldmine of knowledge. With its easy-to-use website interface and customizable PDF generator, this platform offers a user-friendly experience, allowing individuals to effortlessly navigate and access the information they seek. The availability of free PDF books and manuals on this platform demonstrates its commitment to democratizing education and empowering individuals with the tools needed to succeed in their chosen fields. It allows anyone, regardless of their background or financial limitations, to expand their horizons and gain insights from experts in various disciplines. One of the most significant advantages of downloading PDF books and manuals lies in their portability. Unlike physical copies, digital books can be stored and carried on a single device, such as a tablet or smartphone, saving valuable space and weight. This convenience makes it possible for readers to have their entire library at their fingertips, whether they are commuting, traveling, or simply enjoying a lazy afternoon at home. Additionally, digital files are easily searchable, enabling readers to locate specific information within seconds. With a few keystrokes, users can search for keywords, topics, or phrases, making research and finding relevant information a breeze. This efficiency saves time and effort, streamlining the learning process and allowing individuals to focus on extracting the information they need. Furthermore, the availability of free PDF books and manuals fosters a culture of continuous learning. By removing financial barriers, more people can access educational

resources and pursue lifelong learning, contributing to personal growth and professional development. This democratization of knowledge promotes intellectual curiosity and empowers individuals to become lifelong learners, promoting progress and innovation in various fields. It is worth noting that while accessing free Physical Science Paper2 Exemplar Grade11 November 201 PDF books and manuals is convenient and cost-effective, it is vital to respect copyright laws and intellectual property rights. Platforms offering free downloads often operate within legal boundaries, ensuring that the materials they provide are either in the public domain or authorized for distribution. By adhering to copyright laws, users can enjoy the benefits of free access to knowledge while supporting the authors and publishers who make these resources available. In conclusion, the availability of Physical Science Paper2 Exemplar Grade11 November 201 free PDF books and manuals for download has revolutionized the way we access and consume knowledge. With just a few clicks, individuals can explore a vast collection of resources across different disciplines, all free of charge. This accessibility empowers individuals to become lifelong learners, contributing to personal growth, professional development, and the advancement of society as a whole. So why not unlock a world of knowledge today? Start exploring the vast sea of free PDF books and manuals waiting to be discovered right at your fingertips.

FAQs About Physical Science Paper2 Exemplar Grade11 November 201 Books

1. Where can I buy Physical Science Paper2 Exemplar Grade11 November 201 books? Bookstores: Physical bookstores like Barnes & Noble, Waterstones, and independent local stores. Online Retailers: Amazon, Book Depository, and various online bookstores offer a wide range of books in physical and digital formats.
2. What are the different book formats available? Hardcover: Sturdy and durable, usually more expensive. Paperback: Cheaper, lighter, and more portable than hardcovers. E-books: Digital books available for e-readers like Kindle or software like Apple Books, Kindle, and Google Play Books.
3. How do I choose a Physical Science Paper2 Exemplar Grade11 November 201 book to read? Genres: Consider the genre you enjoy (fiction, non-fiction, mystery, sci-fi, etc.). Recommendations: Ask friends, join book clubs, or explore online reviews and recommendations. Author: If you like a particular author, you might enjoy more of their work.
4. How do I take care of Physical Science Paper2 Exemplar Grade11 November 201 books? Storage: Keep them away from direct sunlight and in a dry environment. Handling: Avoid folding pages, use bookmarks, and handle them with clean hands. Cleaning: Gently dust the covers and pages occasionally.
5. Can I borrow books without buying them? Public Libraries: Local libraries offer a wide range of books for borrowing.

Book Swaps: Community book exchanges or online platforms where people exchange books.

6. How can I track my reading progress or manage my book collection? Book Tracking Apps: Goodreads, LibraryThing, and Book Catalogue are popular apps for tracking your reading progress and managing book collections. Spreadsheets: You can create your own spreadsheet to track books read, ratings, and other details.
7. What are Physical Science Paper2 Exemplar Grade11 November 201 audiobooks, and where can I find them? Audiobooks: Audio recordings of books, perfect for listening while commuting or multitasking. Platforms: Audible, LibriVox, and Google Play Books offer a wide selection of audiobooks.
8. How do I support authors or the book industry? Buy Books: Purchase books from authors or independent bookstores. Reviews: Leave reviews on platforms like Goodreads or Amazon. Promotion: Share your favorite books on social media or recommend them to friends.
9. Are there book clubs or reading communities I can join? Local Clubs: Check for local book clubs in libraries or community centers. Online Communities: Platforms like Goodreads have virtual book clubs and discussion groups.
10. Can I read Physical Science Paper2 Exemplar Grade11 November 201 books for free? Public Domain Books: Many classic books are available for free as they're in the public domain. Free E-books: Some websites offer free e-books legally, like Project Gutenberg or Open Library.

Find Physical Science Paper2 Exemplar Grade11 November 201 :

range rover sport 2014 user manual

rauland ics user manual

ratcliff palfinger service manual

ranger apprentice the ruins of gorlan

rational and irrational numbers performance tasks

randall 102e user manual

ramsay arithmetic job skills test study guide

raw score of 30 on praxis math ii

rally education poetry

randy felts reharmonization techniques

raspberry pi user guide gareth

ramses les jeunes vers lexplosion hors collection

range rover l322 repair manual

ramona and her father comprehension questions

rare birds in britain and ireland p a fraser

Physical Science Paper2 Exemplar Grade11 November 201 :

alles begann 1979 eine reise durch deine wilden jahre - Mar 19 2022

web alles begann 1959 eine reise durch deine wilden j recognizing the mannerism ways to acquire this book alles begann

1959 eine reise durch deine wilden j is

alles begann 1982 eine reise durch deine wilden - Nov 26 2022

web alles begann 1953 eine reise durch deine wilden jahre jahrgangsbuch zum 70 geburtstag geschenke für runde geburtstage 2023 und jahrgangsbücher pattloch

alles begann 1959 eine reise durch deine wilden j gene r - Feb 15 2022

web oct 6 2023 alles begann 1979 eine reise durch deine wilden j alles begann 1979 eine reise durch deine wilden j 4

downloaded from cpanel urbnleaf com on 2020 04

alles begann 1959 eine reise durch deine wilden j pdf - Dec 16 2021

web alles begann 1989 eine reise durch deine wilden jahre isbn 9783629114822 kostenloser versand für alle bücher mit versand und verkauf duch amazon zum

alles begann 1989 eine reise durch deine wilden jahre - Nov 14 2021

pdf alles begann 1989 eine reise durch deine wilden j - May 21 2022

web money for below as with ease as evaluation alles begann 1979 eine reise durch deine wilden j what you behind to read childhood in the middle ages and the renaissance

alles begann 1953 von pattloch verlag buch 978 3 629 - Jul 23 2022

web alles begann 1989 eine reise durch deine wilden j bd prosa mar 05 2023 deutsches wrterbuch dec 22 2021 der winsbeke und die winsbekin sep 06 2020 as this

alles begann 1953 eine reise durch deine wilden jahre - Oct 26 2022

web it is not in relation to the costs its about what you need currently this alles begann 1969 eine reise durch deine wilden j as one of the most full of zip sellers here will

alles begann 1979 eine reise durch deine wilden j - Jan 17 2022

web feb 17 2023 thank you very much for downloading alles begann 1959 eine reise durch deine wilden j most likely you

have knowledge that people have see numerous

pdf alles begann 1989 eine reise durch deine wilden j - Jun 21 2022

web alles begann 1989 eine reise durch deine wilden j concordantz und zeyger der spruch und historien aller biblischen
bücher alts un n news testaments teütsch

alles begann 1969 eine reise durch deine wilden jahre - Oct 06 2023

web alles begann 1969 eine reise durch deine wilden jahre isbn 9783629114808 kostenloser versand für alle bücher mit
versand und verkauf duch amazon

alles begann 1989 eine reise durch deine wilden j book - Jan 29 2023

web alles begann 1989 eine reise durch deine wilden j alles begann 1971 apr 16 2021 alles begann 1970 nov 04 2022 alles
began 1989 dec 13 2020 alles begann

alles begann 1969 eine reise durch deine wilden j - Jul 03 2023

web alles begann 1969 eine reise durch deine wilden j herzland jan 22 2022 weird and wonderful sunday times ein
unterhaltsamer trip durch europas herzland zwischen

alles begann 1969 eine reise durch deine wilden j pdf - Dec 28 2022

web may 4 2023 alles begann 1969 eine reise durch deine wilden j pdf right here we have countless ebook alles begann
1969 eine reise durch deine wilden j pdf and

alles begann 1969 eine reise durch deine wilden j 2023 - Sep 05 2023

web alles begann 1969 eine reise durch deine wilden j auf der weihrauchstrae may 21 2022 die reise pionierin reist in die
trkei nach syrien in den libanon und erreicht

alles begann 1990 eine reise durch deine wilden jahre - Mar 31 2023

web alles begann 1990 eine reise durch deine wilden jahre isbn 9783629115577 kostenloser versand für alle bücher mit
versand und verkauf duch amazon

alles begann 1959 eine reise durch deine wilden j 2023 - Aug 24 2022

web alles begann 1953 eine reise durch deine wilden jahre jahrgangsbuch zum 70 geburtstag pattloch verlag buch
gebundene ausgabe

alles begann 1979 eine reise durch deine wilden j margaret - Apr 19 2022

web 4 6 von 5 stern 195 taschenbuch 29 angebote ab 6 00 geschenk 44 geburtstag back in 1979 holzbild personalisierbar
zum hinstellen aufhängen optional beleuchtet

alles begann 1969 eine reise durch deine wilden jahre by - Feb 27 2023

web webschmoeker alles begann 1959 eine reise durch deine wilden jahre 50 jahrestag preisvergleich 9783629114808 alles

beginn 1969 pattloch verlag gmbh co legenden

alles begann 1959 eine reise durch deine wilden jahre - Jun 02 2023

web alles begann 1959 eine reise durch deine wilden jahre isbn 9783629114792 kostenloser versand für alle bücher mit versand und verkauf duch amazon

alles begann 1960 eine reise durch deine wilden jahre - May 01 2023

web alles begann 1960 eine reise durch deine wilden jahre isbn 9783629115546 kostenloser versand für alle bücher mit versand und verkauf duch amazon

alles begann 1969 eine reise durch deine wilden j download - Sep 24 2022

web seelenreisende mediale reisen in die welt der seele ddr wissenschaft im zwiespalt zwischen forschung und staatssicherheit akten des xi internationalen

alles begann 1969 eine reise durch deine wilden j - Aug 04 2023

web alles begann 1969 eine reise durch deine wilden j jahrbücher für geschichte osteuropas 1968 in jugoslawien kunst neue juristische wochenschrift von der 68er

sudut lancip sudut siku siku dan sudut tumpul - Feb 08 2023

web titik sudut disebut juga vertex yang digunakan sebagai patokan untuk mengukur besar sudut dan kaki sudut menunjukkan daerah yang dibentuk oleh sudut sudut bahasa

contoh benda sudut lancip penulis cilik - Jan 07 2023

web jul 6 2023 sudut lancip mempunyai sudut kurang dari 90 derajat sudut siku siku memiliki besar 90 derajat sudut tumpul memiliki besar sudut diatas 90 derajat

contoh benda benda yang memiliki sudut siku siku lancip dan - Dec 06 2022

web jun 5 2021 sudut siku siku memiliki besar sudut tepat 90 derajat contoh benda yang memiliki sudut siku siku almari buku jendela meja jam yang menunjukkan pukul 9 2

pengertian dan rumus sudut lancip dalam ilmu matematika - Aug 02 2022

web contoh nama benda yg berbentuk sudut lancip tumpul dan siku siku yg ada di sekitar rumah brainly indonesia 255k subscribers 52k views 4 years ago bentuk

13 contoh benda sudut lancip dalam kehidupan - Aug 14 2023

web aug 1 2023 sudut lancip sudut lancip memiliki sudut kurang dari 90 sehingga disimpulkan sudut lancip memiliki besar sudut 0 hingga kurang dari 90 contoh

contoh benda yang berbentuk sudut lancip siku siku dan sudut - Nov 05 2022

web jan 1 2019 misal nama benda yg berbentuk sudut lancip kita sanggup menemukan aneka macam benda yang

mempunyai sudut lancip di sekitar rumah kita baik benda

contoh benda yang memiliki sudut siku siku dalam kehidupan - Sep 03 2022

web 3 bentuk benda sudut lancip dan sudut tumpul contoh sudut lancip tangga contoh sudut tumpul sisi2 pada perahu atau kapal benda sudut lancip ujung

sudut lancip pengertian pola benda cara menggambar - Mar 29 2022

contoh benda sudut lancip tumpul dan siku siku - Mar 09 2023

web sep 21 2021 pengertian sudut lancip adalah sudut yang besarnya antara 0 derajat dan 90 derajat sudut lancip dibangun oleh perputaran yang kurang dari seperempat

10 contoh benda sudut tumpul dalam kehidupan sehari hari - May 31 2022

web bentuk pertanyaan sebutkan contoh benda bersudut lancip tumpul dan siku siku masing masing 5 lihat pembahasan yang lebih lengkap di brainly br

sebutkan contoh benda bersudut lancip tumpul dan siku siku - Oct 24 2021

contoh benda berbentuk sudut lancip siku siku tumpul - May 11 2023

web benda yang berbentuk sudut lancip sudut tumpul sudut siku siku 277064 bobonk bobonk 18 07 2014 matematika sekolah dasar terjawab terverifikasi oleh ahli benda

benda yang memiliki sudut lancip mengulik banten - Nov 24 2021

benda yang berbentuk sudut lancip sudut tumpul sudut siku siku - Oct 04 2022

web sep 25 2022 sudut lancip adalah sudut yang terbentuk terjadi karena perpotongan dua garis yang besar sudutnya lebih kecil dari besar sudut siku siku seperti 0 90 contoh

contoh benda bersudut dalam kehidupan sehari hari - Jul 13 2023

web may 27 2022 sudut adalah gambar yang dibentuk oleh dua sinar garis atau kaki sudut yang memiliki titik pangkat yang sama titik pangkal tersebut dikenal juga dengan

bentuk sudut lancip belajar - Jan 27 2022

sudut lancip siku siku tumpul definisi dan contoh bendanya - Apr 10 2023

web may 9 2023 berikut contoh benda yang berbentuk sudut lancip ujung pena dan pensil jarum jam menunjukkan angka 12 dan jarum pendek di angka 2 ujung setrika huruf a

sudut lancip siku siku dan tumpul ini pengertian dan - Feb 25 2022

apa saja contoh benda yang memiliki sudut lancip - Jun 12 2023

web aug 5 2014 lancip ujung paku ujung pensil ujung anak panah tumpul kursi mobil xd siku2 kursi meja

jenis jenis sudut dan contoh sudut di kehidupan sehari hari - Apr 29 2022

sudut 7 jenis sudut tumpul lancip siku refleks lurus - Jul 01 2022

web feb 10 2023 benda yang memiliki sudut lancip contoh benda berbentuk segitiga dalam kehidupan sehari hari banyak sekali benda yang bentuknya berbeda beda

contoh nama benda yg berbentuk sudut lancip tumpul dan siku - Dec 26 2021

matter and interactions 3rd edition solutions crazyforstudy com - Jan 18 2022

web matter interactions vol 1 modern mechanics focuses on the atomic structure of matter and the interactions that matter undergoes end of chapter problems involve

matter and interactions student solutions manual 4th edition - Jul 24 2022

web this is the student solutions manual to accompany matter and interactions 4th edition matter and interactions 4th edition offers a modern curriculum for introductory physics

matter and interactions solution manual chegg com - May 02 2023

web matter and interactions solutions manual get access now with get started select your edition below by 4th edition author ruth w chabay bruce a sherwood 1524

solution manual matter and interactions 3rd edition 1 - Dec 29 2022

web 1 see more documents like this view solution manual matter and interactions 3rd edition from phys 172 at purdue university 1 1 x 1 a this smooth sailing ships

matter and interactions 3rd edition solutions pdf esource svb - Jun 22 2022

web matter and interactions 3rd edition rent 9780470503478 matter and interactions 4th edition 4 chabay ruth w matter interactions i modern mechanics by ruth w

matter and interactions 3rd edition textbook solutions chegg - Dec 17 2021

web unlike static pdf matter and interactions 3rd edition solution manuals or printed answer keys our experts show you how to solve each problem step by step no need to wait for

matter and interactions 3rd edition solutions - Feb 16 2022

web the text emphasizes the small number of fundamental principles that underlie the behavior of matter and models that can explain and predict a wide variety of physical phenomena

chabay sherwood matter and interactions 3rd edition wiley - Jun 03 2023

web chapter 3 the fundamental interactions instructor s solutions manual requires adobe acrobat reader test questions pdf requires adobe acrobat reader test questions

matter and interactions i modern mechanics 3rd edition - Apr 20 2022

web now with expert verified solutions from matter and interactions i modern mechanics 3rd edition you ll learn how to solve your toughest homework problems our resource for

matter and interactions 3rd edition solutions esource svb - May 22 2022

web matter and interactions 3rd edition solutions dynamics of marine ecosystems matter and interactions ii scanning electron microscopy and x ray microanalysis principles

matter and interactions 3rd edition solutions - Feb 28 2023

web the text emphasizes the small number of fundamental principles that underlie the behavior of matter and models that can explain and predict a wide variety of physical phenomena

matter and interactions textbook solutions chegg com - Jul 04 2023

web matter and interactions 3rd edition by bruce a sherwood ruth w chabay 831 matter and interactions 3rd edition by bruce a sherwood ruth w chabay 1720 matter and

matter and interactions 3rd edition solutions and answers - Oct 07 2023

web with expert solutions for thousands of practice problems you can take the guesswork out of studying and move forward with confidence find step by step solutions and answers

matter and interactions 3rd edition textbook solutions chegg - Sep 06 2023

web our interactive player makes it easy to find solutions to matter and interactions 3rd edition problems you re working on just go to the chapter for your book hit a

matter and interactions ii electric and magnetic interactions 3rd - Oct 27 2022

web now with expert verified solutions from matter and interactions ii electric and magnetic interactions 3rd edition you ll learn how to solve your toughest homework problems

students matter interactions - Nov 27 2022

web chapter 1 interactions and motion this chapter includes an introduction to 3d vectors which is also needed for volume 2 electric magnetic interactions fall 2019 videos of

matter and interactions i modern mechanics quizlet - Jan 30 2023

web find step by step solutions and answers to exercise 33c from matter and interactions i modern mechanics
9780470503454 as well as thousands of textbooks so you can

solved chapter 9 problem 33p solution matter and - Apr 01 2023

web access matter and interactions 3rd edition chapter 9 problem 33p solution now our solutions are written by chegg
experts so you can be assured of the highest quality

chapter 1 solutions matter and interactions 3rd edition chegg - Mar 20 2022

web access matter and interactions 3rd edition chapter 1 solutions now our solutions are written by chegg experts so you can
be assured of the highest quality

matter and interactions 3rd edition solutions and answers - Aug 05 2023

web matter and interactions 3rd edition isbn 9781118757451 bruce a sherwood ruth w chabay sorry we don t have content
for this book yet find step by step solutions and

matter interactions contemporary calculus based physics - Sep 25 2022

web matter interactions is a textbook by ruth chabay and bruce sherwood john wiley sons 4th edition 2015 that emphasizes a
modern perspective on the calculus based

free solutions answers for matter interactions step by step - Aug 25 2022

web 1 interactions and motion 82 solutions 2 the momentum principle 128 solutions 3 the fundamental interactions 70
solutions 4 contact interactions 66 solutions 5