



School of Architecture & Planning
BBD University, Lucknow
Faculty List Session : 2024-2025

S. No.	Name of the Faculty Members	Academic Designation
1	Prof. Sumit Wadhera	Professor & Dean
2	Prof. Sangeeta Sharma	Professor & Head
3	Dr.Prof. Mohit Kumar Agarwal	Professor
4	Prof. Rajendra Kumar Tewari	Professor (Design Chair)
5	Prof. Rajit Lal Arya	Professor
6	Ar. Anshu Rastogi	Associate Professor
7	Ar. Ankur Saxena	Associate Professor
8	Ar. Saurabh Saxena	Associate Professor
9	Ar. Varsha Verma	Associate Professor
10	Ar. Shalini Diwaker	Assistant Professor
11	Ar.Aanshul Singh	Assistant Professor
12	Ar.Shailesh Kumar Yadav	Assistant Professor
13	Ar. Kunwar Ghanshayam Yadav	Assistant Professor
14	Ar. Krishna Kumar Singh	Assistant Professor
15	Ar. Kushal Dubey	Assistant Professor
16	Ar. Rishu Sharma	Assistant Professor
Allied Faculty		
1	Mr. Anil Kumar Kannoujia	Associate Professor
2	Mr. Amit Kumar	Associate Professor

Faculty List For The Academic Session 2016 17

M Tight



Faculty List For The Academic Session 2016 17:

If you ally infatuation such a referred **Faculty List For The Academic Session 2016 17** books that will find the money for you worth, get the certainly best seller from us currently from several preferred authors. If you want to comical books, lots of novels, tale, jokes, and more fictions collections are afterward launched, from best seller to one of the most current released.

You may not be perplexed to enjoy all book collections Faculty List For The Academic Session 2016 17 that we will entirely offer. It is not around the costs. Its approximately what you craving currently. This Faculty List For The Academic Session 2016 17, as one of the most functioning sellers here will enormously be in the midst of the best options to review.

<https://py.bijouxmedusa.com/files/uploaded-files/fetch.php/iso%2032000%202%202017.pdf>

Table of Contents Faculty List For The Academic Session 2016 17

1. Understanding the eBook Faculty List For The Academic Session 2016 17
 - The Rise of Digital Reading Faculty List For The Academic Session 2016 17
 - Advantages of eBooks Over Traditional Books
2. Identifying Faculty List For The Academic Session 2016 17
 - 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 Faculty List For The Academic Session 2016 17
 - User-Friendly Interface
4. Exploring eBook Recommendations from Faculty List For The Academic Session 2016 17
 - Personalized Recommendations
 - Faculty List For The Academic Session 2016 17 User Reviews and Ratings
 - Faculty List For The Academic Session 2016 17 and Bestseller Lists
5. Accessing Faculty List For The Academic Session 2016 17 Free and Paid eBooks

- Faculty List For The Academic Session 2016 17 Public Domain eBooks
 - Faculty List For The Academic Session 2016 17 eBook Subscription Services
 - Faculty List For The Academic Session 2016 17 Budget-Friendly Options
6. Navigating Faculty List For The Academic Session 2016 17 eBook Formats
 - ePub, PDF, MOBI, and More
 - Faculty List For The Academic Session 2016 17 Compatibility with Devices
 - Faculty List For The Academic Session 2016 17 Enhanced eBook Features
 7. Enhancing Your Reading Experience
 - Adjustable Fonts and Text Sizes of Faculty List For The Academic Session 2016 17
 - Highlighting and Note-Taking Faculty List For The Academic Session 2016 17
 - Interactive Elements Faculty List For The Academic Session 2016 17
 8. Staying Engaged with Faculty List For The Academic Session 2016 17
 - Joining Online Reading Communities
 - Participating in Virtual Book Clubs
 - Following Authors and Publishers Faculty List For The Academic Session 2016 17
 9. Balancing eBooks and Physical Books Faculty List For The Academic Session 2016 17
 - Benefits of a Digital Library
 - Creating a Diverse Reading Collection Faculty List For The Academic Session 2016 17
 10. Overcoming Reading Challenges
 - Dealing with Digital Eye Strain
 - Minimizing Distractions
 - Managing Screen Time
 11. Cultivating a Reading Routine Faculty List For The Academic Session 2016 17
 - Setting Reading Goals Faculty List For The Academic Session 2016 17
 - Carving Out Dedicated Reading Time
 12. Sourcing Reliable Information of Faculty List For The Academic Session 2016 17
 - Fact-Checking eBook Content of Faculty List For The Academic Session 2016 17
 - 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

Faculty List For The Academic Session 2016 17 Introduction

Faculty List For The Academic Session 2016 17 Offers over 60,000 free eBooks, including many classics that are in the public domain. Open Library: Provides access to over 1 million free eBooks, including classic literature and contemporary works. Faculty List For The Academic Session 2016 17 Offers a vast collection of books, some of which are available for free as PDF downloads, particularly older books in the public domain. Faculty List For The Academic Session 2016 17 : This website hosts a vast collection of scientific articles, books, and textbooks. While it operates in a legal gray area due to copyright issues, its a popular resource for finding various publications. Internet Archive for Faculty List For The Academic Session 2016 17 : Has an extensive collection of digital content, including books, articles, videos, and more. It has a massive library of free downloadable books. Free-eBooks Faculty List For The Academic Session 2016 17 Offers a diverse range of free eBooks across various genres. Faculty List For The Academic Session 2016 17 Focuses mainly on educational books, textbooks, and business books. It offers free PDF downloads for educational purposes. Faculty List For The Academic Session 2016 17 Provides a large selection of free eBooks in different genres, which are available for download in various formats, including PDF. Finding specific Faculty List For The Academic Session 2016 17, especially related to Faculty List For The Academic Session 2016 17, might be challenging as theyre often artistic creations rather than practical blueprints. However, you can explore the following steps to search for or create your own Online Searches: Look for websites, forums, or blogs dedicated to Faculty List For The Academic Session 2016 17, Sometimes enthusiasts share their designs or concepts in PDF format. Books and Magazines Some Faculty List For The Academic Session 2016 17 books or magazines might include. Look for these in online stores or libraries. Remember that while Faculty List For The Academic Session 2016 17, sharing copyrighted material without permission is not legal. Always ensure youre either creating your own or obtaining them from legitimate sources that allow sharing and downloading. Library Check if your local library offers eBook lending services. Many libraries have digital catalogs where you can borrow Faculty List For The Academic Session 2016 17 eBooks for free, including popular titles. Online Retailers: Websites like Amazon, Google Books, or Apple Books often sell eBooks. Sometimes, authors or publishers offer promotions or free periods for certain books. Authors Website Occasionally, authors provide excerpts or short stories for free on their websites. While this might not be the Faculty List For The Academic Session 2016 17 full book , it can give you a taste of the authors writing style. Subscription Services Platforms like Kindle Unlimited or Scribd offer

subscription-based access to a wide range of Faculty List For The Academic Session 2016 17 eBooks, including some popular titles.

FAQs About Faculty List For The Academic Session 2016 17 Books

1. Where can I buy Faculty List For The Academic Session 2016 17 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 Faculty List For The Academic Session 2016 17 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 Faculty List For The Academic Session 2016 17 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 Faculty List For The Academic Session 2016 17 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 Faculty List For The Academic Session 2016 17 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 Faculty List For The Academic Session 2016 17 :

[iso 32000 2 2017](#)

jaguar xj series the complete story

~~ipt pipe trades handbook hemplifeore~~

~~iti electrician theory book in hindi~~

~~iso 6271 2015 12 e din~~

isospectral transformations a new approach to analyzing multidimensional systems and networks springer monographs in mathematics

java spring framework interview questions answers

[javascript the definitive guide epub ebook download](#)

~~introduction to organic chemistry 5th edition brown~~

introduction to psychology gateways mind and behavior 12th edition

[introduction to management accounting horngren 15th edition solutions manual](#)

iq test solved mcqs fullexams com

isuzu engine codes

it handbuch fur fachinformatiker

introduction to iq demodulation of rf data

Faculty List For The Academic Session 2016 17 :

i too am the jewish community rift among us jews widens - Sep 24 2022

web 2 days ago fine said that on a recent call a university donor told her that many jews are very upset about students standing with palestine the jewish community is very diverse she said i

voce ameaca portuguese edition by patricia laurent - Aug 24 2022

web voce ameaca portuguese edition by patricia laurent february 8th 2020 final fantasy xiii walkthroughs on supercheats

walkthrough portuguese registration allows you to keep track of all your content and ments save bookmarks and post in all our forums filosofia 8 ano linkedin slideshare

[where to download voce ameaca portuguese edition pdf free](#) - Feb 15 2022

web jul 18 2023 where to download voce ameaca portuguese edition pdf free copy the routledge portuguese bilingual dictionary revised 2014 edition análise da ameaça terrorista em portugal e na europa the leadership practices inventory 3rd edition participant s workbook portuguese

download solutions voce ameaca portuguese edition - May 21 2022

web voce ameaca portuguese edition the anthology in portugal jan 30 2022 this book breaks new ground in considering the nature and function of anthologies of poetry and short stories in twentieth century portugal it tackles the main theoretical issues identifies a significant body of critical writing on the relationship between anthologies

notícias voa português voz da america voz da américa - Nov 26 2022

web líderes árabes apelam a cessar fogo em gaza por entre ataques israelitas mortais confira as últimas notícias e análises sobre guiné bissau são tomé e príncipe cabo verde e resto do mundo em português na voz da américa clique em voaportugues noticias

[orei por você portuguese edition kindle edition amazon com](#) - Oct 26 2022

web aug 2 2021 orei por você portuguese edition kindle edition by carvalho kell mattos maina religion spirituality kindle ebooks amazon com

voce ameaca portuguese edition kindle edition - Oct 06 2023

web voce ameaca portuguese edition ebook laurent patricia amazon com au kindle store

[how to pronounce voce in portuguese howtopronounce com](#) - Mar 19 2022

web oct 21 2023 add voce details how to say voce in portuguese pronunciation of voce with 3 audio pronunciations 12 translations and more for voce

integrated jewish arab school in jerusalem wins award for - Feb 27 2023

web 2 days ago the school serves more than 600 jewish and arab students from kindergarten through to 12th grade who learn in hebrew and arabic with co teaching teams of jewish and arab teachers led by an

voce ameaca portuguese edition mx skylightframe com - May 01 2023

web voce ameaca portuguese edition vamos aquecer o sol essential 22000 phrases in english portuguese xeretando a linguagem em inglês 12000 português malaio malaio português vocabulário alimentação saudável em português healthy eating in portuguese o guia da ciência alimentar sobre o que comer a frequency dictionary of portuguese

[voce ameaca portuguese edition ebook amazon in](#) - Mar 31 2023

web voce ameaca portuguese edition ebook laurent patricia amazon in kindle ☐ ☐ ☐

[voa português washington d c dc facebook](#) - Dec 28 2022

web voa português washington d c 437 005 likes 827 were here voa português é a página da rádio voz da américa muitas notícias da África lusófona

audio voa português voz da america voz da américa - Jul 23 2022

web oiça a voz da américa para as últimas notícias e principais destaque de África e do mundo em português sintone se em voaportugues com audio

voce ameaca portuguese edition by patricia laurent - Sep 05 2023

web voce ameaca portuguese edition by patricia laurent march 21st 2020 introduction the 5 th edition of the diagnostic and statistical manual of mental disorders dsm 5 released on may 2013

descubra o seu ritmo em just dance 2024 edition nintendo - Apr 19 2022

web oct 24 2023 dance e compartilhe momentos emocionantes o ano todo just dance 2024 edition já está disponível para o console nintendo switch 40 músicas e universos novos just dance 2024 edition

voices of dual nationals who fled gaza npr - Jan 29 2023

web nov 3 2023 the vast majority of gazans will not get to cross and not get to leave this is only open to the lucky few a few 100 in gaza are being allowed to leave every day international aid workers

voce ameaca portuguese edition kindle edition amazon de - Jun 02 2023

web voce ameaca portuguese edition ebook laurent patricia amazon de kindle store

[barbra streisand never had a nose job over fears it would damage her voice](#) - Jun 21 2022

web 6 hours ago barbra streisand never had a nose job as she feared it would damage her voice her memoir has revealed the american actress and singer 81 who is known for films such as the way we were yentl

voice of america portuguese free internet radio tunein - Jul 03 2023

web voice of america portuguese us listen to free internet radio news sports music audiobooks and podcasts stream live cnn fox news radio and msnbc plus 100 000 am fm radio stations featuring music news and local sports talk

voce ameaca portuguese edition kindle edition amazon com - Aug 04 2023

web jan 14 2018 buy voce ameaca portuguese edition read kindle store reviews amazon com

the mole and avogadro s constant chemistry libretexts - Feb 25 2022

web 4 relative mass and the mole key2022 07 17 particles such as atoms molecules ions or electrons in a substance what is the difference between molar mass molecular

[relative mass and the mole docx relative mass and the](#) - Sep 03 2022

web college level chemistry ap dp

relative molecular mass mole videos lessons study com - Jan 27 2022

web dental 2e 3 1 formula mass and that mouth concept chemistry 2e 3 1 formula earth and the mole concept end

relative masses and moles teaching resources - Aug 02 2022

web answers key questions exercises 1 the atomic weight of carbon is 12 0107 u so a mole of carbon has a mass of 12 0107 g

reading the mole chemistrygods net relative mass - Mar 29 2022

web chrome reader mode join reader mode

relative mass and the mole pogil answers pdf - Oct 04 2022

web 5 7 net ionic equations 6 1 the mole and avogadro s number 6 1 the mole and avogadro s number a mole is 6 022 10²³ 6

022 10 23 things 6 2 gram mole

relative mass and the mole worksheets teacher worksheets - Dec 06 2022

web 1 mole of helium contains 6 02 x 10²³ atoms and has a mass of 4 0 grams 1 formula unit of calcium chloride cacl₂ has a mass of 110 99 amu 1 mole of cacl₂ contains

relative of a mole crossword clue wordplays com - Sep 22 2021

reading the mole chemistrygods net relative mass - May 31 2022

web jan 30 2023 one mole is equal to 6 02214179 times 10²³ atoms or select fundamental units so as the mole and avogadro s constant chemistry libretexts

6 chemical reactions mole and mass relationships - Jul 01 2022

web the mole ibsem1molereading pdf file size 5537 kb file choose pdf download files powered the create your own unique website with customizable templates

chapter 1 7 the mole and molar mass chemistry libretexts - Dec 26 2021

web the crossword solver found 30 answers to relative of a mole 5 letters crossword clue the crossword solver finds answers to classic crosswords and cryptic crossword

relative mass and the mole answer key pdf prof - Jan 07 2023

web view relative mass and the mole answer key pdf from math 101 at grosse ile high school

unlock the answers relative mass and mole answer key - Mar 09 2023

web relative mass and the mole answer key consider the following equation for a chemical reaction 2h₂ o₂ if the formula mass of iron ii sulfate feso₄ is 151 9 amu what is the

moles and equations chapter 1 cambridge university press - Jun 12 2023

web jul 29 2021 one mole of isotopically pure carbon 12 has a mass of 12 g for an element the molar mass is the mass of 1 mol of atoms of that element for a covalent molecular

3 1 formula mass and the mole concept chemistry 2e - May 11 2023

web how are relative mass and mole related the relationship between relative mass and mole can be expressed using the following equation number of moles mass

moles and masses higher calculations in chemistry - Aug 14 2023

web gcse aqa calculations in chemistry higher the mole is the unit for amount of substance the number of particles in a substance can be found using the avogadro constant the

relative mass and the mole answer key pdf course hero - Nov 05 2022

web oct 25 2016 docx 29 81 kb pptx 227 54 kb presentation and worksheets introducing relative masses and moles written in line with 1 9 grading also include required prior

3 1 formula mass and the mole concept chemistry 2e openstax - Oct 24 2021

pogil relative mass and the mole answer key answers for - Apr 29 2022

web view all practice tests in this course 1 isotopes and average atomic mass isotopes are variations of the same element with differing numbers of neutrons and subsequently

relative mass and the mole honors chemistry - Feb 08 2023

web relative mass and the mole worksheets there are 8 printable worksheets for this topic worksheets are relative mass and the mole answer key pogil r

chapter 1 7 the mole and molar mass chemistry - Apr 10 2023

web relative mass and the mole how can atoms be counted using a balance why consider the following equation for a chemical reaction $2\text{H}_2 + \text{O}_2 \rightarrow 2\text{H}_2\text{O}$ this can be

relative mass and the mole key pdf ol wise edu - Nov 24 2021

22 relative mass and the mole s converted studocu - Jul 13 2023

web relative molecular mass the weighted average mass of a molecule on a scale on which an atom of the ^{12}C isotope has a mass of exactly 12 units r t p room temperature and

pdf prentice hall gold algebra 2 functions - Sep 10 2022

web computational commutative algebra 2 oct 15 2023 the second volume of the authors computational commutative algebra covers on its 586 pages a wealth of interesting material with several unexpected applications an encyclopedia on

computational

prentice hall mathematics algebra 2 book answers flashcards - Feb 15 2023

web slader com textbook 9780131339989 algebra 2 8 learn with flashcards games and more for free

prentice hall algebra 2 pearson plc - Oct 23 2023

web what is the solution of $5x + 10 = 15$ graph the solution reasoning without solving $x + 3 = 2$ describe the graph of its solution take note concept summary solutions of absolute value statements a manufactured item's actual measurements and its target measurements can differ by a certain amount called tolerance

prentice hall mathematics algebra 2 answers - Aug 09 2022

web if ever you actually have help with math and in particular with prentice hall mathematics algebra 2 answers or the quadratic formula come visit us at algebra1help.com we keep a tremendous amount of great reference information on matters starting from solving exponential to percents free algebra

alg 2 ch 6 prentice hall pdf prime number numbers scribd - Jul 08 2022

web the command int in most popular spreadsheet programs serves the same purpose as the greatest integer function for instance $\text{int}(3.8453) = \text{int}(21.99522) = \text{int}(7.57) = 7$ to round a number x to r decimal places a computer performs the following procedure step 1 multiply x by 10^r step 2 add 0.5 to the result 2

prentice hall gold algebra 2 worksheets k12 workbook - Nov 12 2022

web showing 8 worksheets for prentice hall gold algebra 2 worksheets are prentice hall gold algebra 2 prentice hall gold algebra 2 work answers prentice

prentice hall mathematics algebra 2 lumos learning - Mar 16 2023

web prentice hall mathematics algebra 2 grade 11 workbook answers help online grade 11 title prentice hall mathematics algebra 2 publisher prentice hall isbn 0013062568x prentice hall mathematics algebra 2 answers resources lumos learning

[prentice hall algebra 2 math homework help mathhelp.com](#) - Oct 11 2022

web mathhelp.com mathhelp.com search textb offers 1000 online math lessons matched to the prentice hall algebra 2 textbooks get the exact help you need instantly just click on

prentice hall mathematics algebra 2 1st edition quizlet - Aug 21 2023

web find step by step solutions and answers to prentice hall mathematics algebra 2 9780132015974 as well as thousands of textbooks so you can move forward with confidence

prentice hall gold algebra 2 worksheets kiddy math - Jan 14 2023

web prentice hall gold algebra 2 unseen passage for classiii dividing by powers of 10 stranger danger safty weather forecast for grade 4 rearranging atoms strand 4 life in space story plot 1st grade strengths needs abilities preference support activity

8th grade 201 a perfect day for bananafish gradients find hcf stem

prentice hall mathematics algebra 2 9780132015974 quizlet - May 18 2023

web find step by step solutions and answers to prentice hall mathematics algebra 2 9780132015974 as well as thousands of textbooks so you can move forward with confidence

algebra 2 practice and problem solving workbook quizlet - Sep 22 2023

web practice find step by step solutions and answers to algebra 2 practice and problem solving workbook 9780133688894 as well as thousands of textbooks so you can move forward with confidence

prentice hall algebra 2 answer key softmath - May 06 2022

web the step by step process used for solving algebra problems is so valuable to students and the software hints help students understand the process of solving algebraic equations and fractions i usually don t send in a testimonial like this but i really had to say algebrator took the edge off my math problems

prentice hall gold algebra 2 worksheets learny kids - Mar 04 2022

web displaying top 8 worksheets found for prentice hall gold algebra 2 some of the worksheets for this concept are prentice hall gold algebra 2 prentice hall gold algebra 2 work answers prentice hall gold algebra 2 work answers prentice hall gold algebra 2 prentice hall gold algebra 2 teaching resources chapter 6 test prentice hall gold

prentice hall gold algebra 2 2 4 tutordale com - Apr 05 2022

web oct 4 2022 prentice hall gold algebra 2 answer key form g round lengths to the nearest tenth and angle measures to the nearest 6 find the values of w a degree

algebra 2 1st edition solutions and answers quizlet - Jun 19 2023

web find step by step solutions and answers to algebra 2 9780133706208 as well as thousands of textbooks so you can move forward with confidence

prentice hall algebra 1 pearson plc - Jun 07 2022

web welcome to pearson s prentice hall algebra 1 student book throughout this textbook you will find content that has been developed to cover all of the american diploma project s adp math benchmarks the end of course assessment is modeled after the adp algebra 1 test and can serve as practice before taking the actual adp test

prentice hall mathematics a g a ease of use savvas - Dec 13 2022

web prentice hall algebra 1 geometry algebra 2 makes it easy to teach by providing the teacher with a wealth of resources to meet the needs of a diverse classroom from extra practice to performance tasks to activities games and puzzles savvas is your one stop shop for all teaching resources

prentice hall algebra 2 online textbook help study com - Apr 17 2023

web nov 4 2023 course summary use this textbook companion course to get the most out of your prentice hall algebra 2 textbook you can use these video lessons and printable transcripts to supplement what you re

prentice hall algebra 2 pearson plc - Jul 20 2023

web solve each equation check your answers $3x + 18 = 3x + 18$ $4x + 32 = 4x + 32$ $x + 3 = 9$ $x + 3 = 9$ $2 + 3x = 2 + 14$ $2 + 3 = 2 + 14$ $3x + 4 = 3 + 4$ $3 + 4 = 2x + 3$ $1 + 2x + 3 = 1 + 4$ $3 + 17 = x + 4$ $3 + 17 = x + 4$ $5 + 2 = 10$ $y + 5 = 2 + 10$ $4 + z = 10$ $1 + 4 = z + 10$ 1 see problem 3