ASCE STANDARD

7-10

Third Printing Errata Incorporated Includes Supplement 1

# Minimum Design Loads for Buildings and Other Structures

American Society of Civil Engineers

7-10

Third Printing Errata Incorporated Includes Supplement 1

Minimum Design Loads for Buildings and Other Structures

This document uses both the International System of Units (SI) and customery units.



Principles

# Minimum Design Loads For Buildings And Other Structures Asce 10

Federal Emergency Management Agency **Minimum Design Loads For Buildings And Other Structures Asce 10:** 

Unveiling the Energy of Verbal Art: An Emotional Sojourn through **Minimum Design Loads For Buildings And Other Structures Asce 10** 

In a global inundated with monitors and the cacophony of quick communication, the profound energy and psychological resonance of verbal beauty often fade in to obscurity, eclipsed by the continuous assault of noise and distractions. Yet, nestled within the lyrical pages of **Minimum Design Loads For Buildings And Other Structures Asce 10**, a interesting function of literary elegance that pulses with organic feelings, lies an wonderful trip waiting to be embarked upon. Written by a virtuoso wordsmith, that enchanting opus books visitors on a mental odyssey, softly revealing the latent possible and profound impact stuck within the complex web of language. Within the heart-wrenching expanse with this evocative analysis, we can embark upon an introspective exploration of the book is key subjects, dissect its captivating publishing model, and immerse ourselves in the indelible effect it leaves upon the depths of readers souls.

https://staging.conocer.cide.edu/public/publication/HomePages/Linux%20For%20Dummies.pdf

#### Table of Contents Minimum Design Loads For Buildings And Other Structures Asce 10

- 1. Understanding the eBook Minimum Design Loads For Buildings And Other Structures Asce 10
  - The Rise of Digital Reading Minimum Design Loads For Buildings And Other Structures Asce 10
  - Advantages of eBooks Over Traditional Books
- 2. Identifying Minimum Design Loads For Buildings And Other Structures Asce 10
  - 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 Minimum Design Loads For Buildings And Other Structures Asce 10
  - User-Friendly Interface
- 4. Exploring eBook Recommendations from Minimum Design Loads For Buildings And Other Structures Asce 10

- Personalized Recommendations
- Minimum Design Loads For Buildings And Other Structures Asce 10 User Reviews and Ratings
- Minimum Design Loads For Buildings And Other Structures Asce 10 and Bestseller Lists
- 5. Accessing Minimum Design Loads For Buildings And Other Structures Asce 10 Free and Paid eBooks
  - Minimum Design Loads For Buildings And Other Structures Asce 10 Public Domain eBooks
  - Minimum Design Loads For Buildings And Other Structures Asce 10 eBook Subscription Services
  - Minimum Design Loads For Buildings And Other Structures Asce 10 Budget-Friendly Options
- 6. Navigating Minimum Design Loads For Buildings And Other Structures Asce 10 eBook Formats
  - o ePub, PDF, MOBI, and More
  - Minimum Design Loads For Buildings And Other Structures Asce 10 Compatibility with Devices
  - Minimum Design Loads For Buildings And Other Structures Asce 10 Enhanced eBook Features
- 7. Enhancing Your Reading Experience
  - o Adjustable Fonts and Text Sizes of Minimum Design Loads For Buildings And Other Structures Asce 10
  - Highlighting and Note-Taking Minimum Design Loads For Buildings And Other Structures Asce 10
  - Interactive Elements Minimum Design Loads For Buildings And Other Structures Asce 10
- 8. Staying Engaged with Minimum Design Loads For Buildings And Other Structures Asce 10
  - o Joining Online Reading Communities
  - Participating in Virtual Book Clubs
  - Following Authors and Publishers Minimum Design Loads For Buildings And Other Structures Asce 10
- 9. Balancing eBooks and Physical Books Minimum Design Loads For Buildings And Other Structures Asce 10
  - Benefits of a Digital Library
  - o Creating a Diverse Reading Collection Minimum Design Loads For Buildings And Other Structures Asce 10
- 10. Overcoming Reading Challenges
  - Dealing with Digital Eye Strain
  - Minimizing Distractions
  - Managing Screen Time
- 11. Cultivating a Reading Routine Minimum Design Loads For Buildings And Other Structures Asce 10
  - Setting Reading Goals Minimum Design Loads For Buildings And Other Structures Asce 10
  - Carving Out Dedicated Reading Time
- 12. Sourcing Reliable Information of Minimum Design Loads For Buildings And Other Structures Asce 10

- Fact-Checking eBook Content of Minimum Design Loads For Buildings And Other Structures Asce 10
- 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

### Minimum Design Loads For Buildings And Other Structures Asce 10 Introduction

Free PDF Books and Manuals for Download: Unlocking Knowledge at Your Fingertips In todays 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 Minimum Design Loads For Buildings And Other Structures Asce 10 PDF books and manuals is the internets 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 userfriendly 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 Minimum Design Loads For Buildings And Other Structures Asce 10 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 Minimum Design Loads For Buildings And Other Structures Asce 10 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 Minimum Design Loads For Buildings And Other Structures Asce 10 Books

How do I know which eBook platform is the best for me? Finding the best eBook platform depends on your reading preferences and device compatibility. Research different platforms, read user reviews, and explore their features before making a choice. Are free eBooks of good quality? Yes, many reputable platforms offer high-quality free eBooks, including classics and public domain works. However, make sure to verify the source to ensure the eBook credibility. Can I read eBooks without an eReader? Absolutely! Most eBook platforms offer web-based readers or mobile apps that allow you to read eBooks on your computer, tablet, or smartphone. How do I avoid digital eye strain while reading eBooks? To prevent digital eye strain, take regular breaks, adjust the font size and background color, and ensure proper lighting while reading eBooks. What the advantage of interactive eBooks? Interactive eBooks incorporate multimedia elements, quizzes, and activities, enhancing the reader engagement and providing a more immersive learning experience. Minimum Design Loads For Buildings And Other Structures Asce 10 is one of the best book in our library for free trial. We provide copy of Minimum Design Loads For Buildings And Other Structures Asce 10 in digital format, so the resources that you find are reliable. There

are also many Ebooks of related with Minimum Design Loads For Buildings And Other Structures Asce 10. Where to download Minimum Design Loads For Buildings And Other Structures Asce 10 online for free? Are you looking for Minimum Design Loads For Buildings And Other Structures Asce 10 PDF? This is definitely going to save you time and cash in something you should think about.

# Find Minimum Design Loads For Buildings And Other Structures Asce 10:

linux for dummies

listen and read uncle wiggily stories

literary america a chronicle of american

lingerie and sleepwear 24 original designs you can make yourself

listeners guide to musical understanding

lion king-giant color and activity

linear system theory and design

linguistic theories and their application

listenr gd opera firesides holiday house

linfluence du droit angloamericain survaleurs mobilieres emise par sa en dt

lista de schindler la

litaliano giocando

lip smackin fast cookin hunger bustin gr8 tastin cookbook

lisa maria takes off

lion time in timbuctoo

#### Minimum Design Loads For Buildings And Other Structures Asce 10:

biologji 6 test bundy laverdad edu - Oct 24 2021

#### kuiz ne biologji kl lx proprofs quiz - Dec 06 2022

web test ne biologji per klasen e 6 pdfsdocuments2 com kuiz nga biologjia e klasës 6 rapitful shqip biologji test pytje dhe pergjigje rapitful shqip udhëzues mësuesi

Тест тапсырмалары биология пәнінен 6 11 класс - Мау 31 2022

web free test biologji klasa 6 mediaprint pdf epub mobi biologjia e klases se 6 proprofs quiz test nga biologjia purposegames test ne biologji klasa 7 bing pdfsdirnn com

# pytje nga lenda e biologjise proprofs quiz - Jun 12 2023

web mar 22 2023 në këtë proces qelizat e sistemit imunitar të quajtura fagocite kapin dhe gëlltin copëza të huaja ose mikroorganizma për të eliminuar toksinat dhe infeksionet kjo

# test ne biologji per klasen e 6 bespoke cityam - Feb 25 2022

web për planifikimin e programit të lëndës biologji klasa e 6 plotëson librin e mësuesit të kësaj lënde ai ka për qëllim të lehtësojë punën e mësuesit në procesin e planifikimit të

biologjia e klases se 6 proprofs quiz - Jul 13 2023

web mar 22 2023 correct answer b eshte shkence natyrore qe studion jeten e qenieve te gjalla explanation the correct answer is eshte shkence natyrore qe studion jeten e

test ne biologji per klasen e 6 vdocuments mx - Jan 07 2023

web mar 22 2023 try this amazing kuiz ne biologji kl lx quiz which has been attempted 12355 times by avid quiz takers also explore over 1 similar quizzes in this category

test nga biologjia per klasen e 6 pdf download apeejay - Jul 01 2022

web test ne biologji per klasen e 6 pdfsdocuments2 com libër mësuesi albas al kuiz nga biologjia 6 mëso shqip test biologjia 9 scribd com test nga biologjia scribd com

test ne biologji per klasen e 6 rexhep ismajli copy - Aug 02 2022

web 11 класс Тесты Скачать материал Тест 11 класс оқушыларына аралған 1 Метоболизм қай тілден алынған A латын B грек C парсы Д орыс E қазақ

#### biologii 6 test orientation sutd edu sq - Apr 29 2022

web pyetje nga testi kombetar per klasen e 9 najdi test ushtrime per test ne gjuhen angleze nadarjene 4 razred test per kl 6 biologji psiho testovi za fusha biologji lËnda

biologii proprofs quiz - Feb 08 2023

web feb 7 2018 test ne biologji per klasen e 6 pdf free download here libër 9 ethem ruka drita nashi 9 libër media print mediaprint al uploads books biologji 9 liber

test biologji vi tremujori i parë viti shkollor 2021 2022 - Aug 14 2023

web më poshtë do të gjeni një model testi në e lëndën e biologjisë së klasës së 6 të për periudhën e parë shtator dhjetor testi është përgatitur nga mësuesja pranvera musta

biologiya vi sinif - Sep 03 2022

web test gjuhe shqipe per klasen e 8 free pdfkuiz anglisht per klasen 7 mëso shqip test ne biologji per klasen e 6 indocpa com teste per klasen e trete bing just pdf

liber mesuesi biologjia 6 cembridxh shkollaime al - Apr 10 2023

web mar 22 2023 explanation the answer 2000000 is likely the correct answer because it is the only option that is a plausible number for the amount of bricks used in the

test biologji klasa 6 - Mar 29 2022

web mar 22 2023 correct answer pal engjëlli 7 gjuha shqipe ka dy dialekte geg dhe tosk a true b false

test lënda biologji klasa e vii shfmu drita gramaçel - Nov 24 2021

biologiia 6 pdf scribd - Nov 05 2022

web vi sinif testləri aşağıdakı bölmələrə bölünür Əsas səhifə testlər biologiya vi sinif Çiçəkli bitkilərlə ümumi tanışlıq bitkilərin hüceyrəvi quruluşu kök zoğ yarpaq və gövdə

kuiz për klasën e 7 proprofs quiz - Jan 27 2022

web test lënda biologji klasa e vii profesor burim avdiaj

test nga biologjia proprofs quiz - May 11 2023

web libër mësuesi biologjia 6 4 hyrje paketa e biologjisë 6 të kembrixhitështë hartuar në përputhje me kurrikulën e fushës së shkencave të natyrës dhe programin e lëndës

klasa 6 biologji test galileo banyanbotanicals - Dec 26 2021

web media print test biologji klasa 6 mediaprint fabulous fashion com test ne biologji per klasen e 6 pdfsdocuments2 com test nga biologjia 6 bing just pdf biologji test

biologji 6 test lia erc gov ph - Oct 04 2022

web test ne biologji per klasen e 6 1 downloaded from darelova com on 2022 12 27 by guest test ne biologji per klasen e 6 as recognized adventure as capably as experience

kuiz per klasen e 6 proprofs quiz - Mar 09 2023

web mar 22 2023 zemra gjaku veshka syri gjuha explanation the given answer consists of body parts such as zemra heart gjaku blood veshka kidney syri eye and

fats quiz health encyclopedia university of rochester - Aug 17 2023

web a beef b butter c cookies d all of the above 5 if you consume 2 000 calories a day and want to limit the amount of fat you eat to no more than 30 how many grams of fat is that a 44 grams b 56 grams c 67 grams d 78 grams 6 fat substitutes are 1 option for cutting the fat calories in foods

# fats and oils mcq and answers mypharmaguide com - Feb 28 2022

web mar 13 2022 1 fats and oils are esters amides carboxylic acids phenols ans esters 2 soaps are prepared by hydrolysis of trigylcerides using hcl h2so4 naoh h2o ans naoh 3 example of drying oil is coconut oil castor oil linseed oil olive oil ans linseed oil 4 which of the below fatty acid is an example of unsaturated fatty acid myristic acid oleic acid

# fat and fats quiz healthy fats fatty foods medicinenet - Sep 18 2023

web nov 6 2017 the correct answer is to control metabolism and immune function explanation the purpose of fat in our bodies is to control metabolism and immune function fat plays various roles in the body including insulating the body and maintaining body temperature protecting our organs acting as an energy reserve and helping us absorb lipids practice macromolecules khan academy - Feb 11 2023

web choose 1 answer they are composed of nitrogenous chains they are composed of nitrogenous chains they are not soluble in water they are either fats or oils they are either fats or oils they are 66 questions with answers in fats science topic researchgate - May 14 2023

web nov 11 2023 asked a question related to fats what is the response to growth weight and egg size of layers fed combined inclusion of ginger zingiber officinale and garlic allium sativum question

## fats mcqs with answers net explanations - Jun 03 2022

web jul 5 2021 fats mcqs hello students our next topic is fats the fats or lipids are the biomolecules that are hydrophobic it plays important role in living organisms it acts as long term energy source and it has role in protection the types of fats are insoluble in water the set of mcqs will provide you more information about fats

fats definition of fats by medical dictionary - Oct 07 2022

web fats nutrition a family of foods in the diet see balanced diet essential dietary component food pyramid four food groups mineral vitamin food groups

#### fat s questions and answers introductory biology - Nov 08 2022

web from this data answer the following questions a what is the relationship between fat intake and blood pressure 1 mark b which gender should consume less fats in their diet

# 5 questions and answers about fat - Apr 13 2023

web jun 9 2017 so without further ado here are five questions and answers about fat question 1 what is fat fats in foods supply calories and essential fatty acids they also aid the absorption of fat soluble vitamins like vitamins a d e and k fat carbohydrates and protein are the three macronutrients in our foods that provide calories

#### 23 fat quizzes questions answers trivia proprofs - Sep 06 2022

web mar 20 2023 quiz will i be fat quiz will i be fat our bodies go through many changes and we often question ourselves

will i be fat in the future quiz yourself with these questions because we can never be sure how our bodies will look in time our eating habits and questions 10 attempts 35803 last updated may 8 2023 sample

questions answers about fats in our diet ndsu agriculture - Jun 15 2023

web it also answers common questions about dietary fats q what are the current recommendations related to fats in the diet choosing liquid vegetable oils instead of solid fats is a great way to be kind to your body

# fats quiz nutritional quiz nutrition quizzes food groups and - Jul 16 2023

web science activities fats quiz test your knowledge in fats one of the nutrients in our food learn about the basic nutrients and the five food groups with us

quiz worksheet function structure of fats study com - Jul 04 2022

web 1 what is this molecule called glycerol carboxyl group hydroxyl group all answers are correct 2 what is this image depicting a fat a glycerol and 3 fatty acid chains a triglyceride all

newest fats questions chemistry stack exchange - May 02 2022

web my question is what reaction products are formed if an unsaturated fat is reacted at ca 20 50 c with aqueous hydrogen peroxide of ca 35 to find the answer we can subdivide the question into

# fats and oils your questions answered healthy food guide - Oct 19 2023

web apr 3 2017 we answer your questions so you can make healthier choices what are fats fat is a macronutrient found in food along with protein and carbohydrate fats are chemically similar substances composed of fatty acids they include liquid oils such as olive oil as well as solid fats such as butter vegetable shortening ghee and lard

#### 13 very interesting questions with their answers explained - Aug 05 2022

web dec 2 2022 the answers are based on science and general facts so let s begin our virtual question answer session and find out how smart you actually are table of contents 13 what s the color of mirror 12 how much of our brain do we use 11 where do permanently deleted files go in computers 10 what is the resolution of the human

what is fat good fats and bad fats skillsyouneed - Jan 10 2023

web these fats tend to be solid at room temperature like butter or lard where a fat contains one or more double bond it is unsaturated it has the capacity to bond with more molecules of something else these fats are more likely to be liquid at room temperature oils when a fat has several unsaturated bonds it is polyunsaturated

fat and protein metabolism questions practice khan academy - Mar 12 2023

web choose 1 answer proteins a proteins disaccharides b disaccharides cellulose c cellulose triglycerides d triglycerides stuck use a hint report a problem loading learn for free about math art computer programming economics physics chemistry biology medicine finance history and more

mcq on fatty acids easybiologyclass - Apr 01 2022

web 1 most commonly occurring fatty acids in nature are a even number of carbon atoms in an un branched chain of 12 24 carbons b odd number of carbon atoms in an un branched chain of 12 24 carbons c even number of carbon atoms in a branched chain of 12 24 carbons 2

# test for fats biology practicals for class 12 with viva questions - Dec 09 2022

web these include saturated fats they contribute to the bad cholesterol and are usually present in animal products such as milk cheese meat etc hence should be consumed in limited quantity saturated fats are substituted by unsaturated fats to lower cholesterol levels trans fatty acids play a similar role

# r12 2 oracle payables management fundamentals - Mar 10 2023

web oracle help center

updated etrm for ebs 12 2 now available feb 2022 oracle - Dec 07 2022

web may 24 2023 oracle enterprise asset management version 12 1 1 to 12 1 3 release 12 1 oracle property manager version 12 2 to 12 2 release 12 2 information in this

r12 technical reference manuals oracle mosc - Sep 04 2022

web aug 29 2023 r12 documentation oracle project billing user s guide and etrm doc id 1489296 1 last updated on august 29 2023 applies to oracle project billing

r12 documentation oracle project billing user s guide and etrm - Aug 03 2022

web oracle imarketing technical reference manual a86138 01 oracle ipayment technical reference manual a86139 01 oracle istore technical reference manual a86152

# oracle r12 payable technical reference manual pdf pdf tax - Sep 23 2021

web oracle corporation and its affiliates disclaim any liability for any damages caused by use of this software in dangerous applications this software and documentation may provide

r12 ap intercompany payable transactions not getting - Jan 08 2023

web feb 23 2022 the following steps are a summary of how to install and configure etrm in your oracle e business suite instance apply etrm patch 33578812 r12 fnd c it is

oracle payables - Jun 13 2023

web cookie preferences ad choices

oracle applications 11i technical reference manuals - Jul 02 2022

web nov 24 2020 technical reference manual for oracle payables r12 welcome to release 12 of the oracle payables reference guide this guide assumes you have a working

# oracle payables - Aug 23 2021

#### oracle payables reference guide - Oct 25 2021

web oracle r12 payable technical reference manual pdf pages 2 12 oracle r12 payable technical reference manual pdf upload dona h paterson 2 12 downloaded from tax

#### oracle help center - Feb 09 2023

web sep 15 2023 in this document symptoms changes cause solution references my oracle support provides customers with access to over a million knowledge articles and

# oracle payables technical reference manual r12 pdf - Apr 30 2022

web payables technical reference manual club oracle forums r12 1 where can i find the latest etrm information for 12 oracle r12 accounts payable technical reference

oracle payables technical reference manual r12 copy - Feb 26 2022

web introduction oracle r12 payable technical reference manual pdf 2023 mastering oracle pl sql christopher beck 2008 01 01 if you have mastered the fundamentals of

## oracle payables technical reference manual r12 - Dec 27 2021

web oracle r12 payable technical reference manual oracle r12 payable technical reference manual 2 downloaded from forms indiraedu com on 2023 03 29 by guest

r12 1 where can i find the latest etrm information for 12 1 3 or - Nov 06 2022

web oracle payables applications technical reference manual a80833 01 oracle property manager technical reference manual a80836 01 oracle receivables applications

# oracle r12 payable technical reference manual copy - Nov 25 2021

web oracle electronic technical reference manual the oracle electronic technical reference manual etrm contains database diagrams and a detailed description of

oracle r12 payable technical reference manual pdf - Jan 28 2022

web oracle payables technical reference manual r12 ebook oracle payables technical reference manual r12 currently available at senze media com for review only if

oracle e business suite r12 2 12 2 documentation library - May 12 2023

web posting in oracle general ledger intercompany accounting when you use oracle general ledger drilling down to payables from oracle general ledger reconciling

oracle payables - Aug 15 2023

web technical reference manual etrm contains database diagrams and a detailed description of database tables forms reports and programs for a specific oracle

# oracle payables reference guide - Jul 14 2023

web programs software databases and related documentation and technical data delivered to u s government customers are commercial computer software or commercial

# oracle payables technical reference manual r12 pdf ftp popcake - Mar 30 2022

web oracle payables technical reference manual r12 is available in our book collection an online access to it is set as public so you can get it instantly our digital library spans in

# oracle payables user s guide - Apr 11 2023

web this r12 2 oracle payables management fundamentals training teaches you how to set up and use oracle payables to manage the accounts payable process you ll learn how to

# technical reference manual for oracle payables r12 guidebook - Jun 01 2022

web oracle payables technical reference manual r12 downloaded from m plumvillage org by guest layla shiloh oracle payables oracle payables technical reference

# oracle applications 11i technical reference manuals - Oct 05 2022

web mar 24 2011 there are technical reference manuals for each application in r11i however i can t seem to find the equivalent for r12 appreciate if somebody could point