

PREFACE

C programming language offers several facilities to group data together in convenient packages, or data structures. With the emergence of C as the most popular language of implementation blossomed from Bell laboratories.

This book for practical “Data Structures laboratory” is an introduction to all popular data structures and their implementation with the C language. It is planned for beginners who would like to learn the subject through programs.

This edition emphasizes on abstract concepts of Data Structures and describes how these are useful in problem solving using structures such as queues, arrays, linked lists, stacks, trees and graphs. Students will gain a good appreciation of the subject as this book has a clear display of syntax and elegant programming examples. To simplify concepts, the data structures are implemented using C language, in a step-by-step manner.

<i>BGS College of Engineering & Technology</i>
<i>Department of Computer Science and Engineering</i>
<u>Vision</u> Nurturing young minds to making them industry ready IT professionals
<u>Mission</u> M1: Providing strong foundational knowledge of mathematics, science, and computational approaches on solving theoretical and practical problems of Computer Science. M2: Imparting high quality advanced knowledge in experiential learning to get expertise in modern software tools and to cater to the real time requirements of the industry. M3: Fostering the professionalism to achieve goals by inculcating niche skills for Successful Entrepreneur M4: Provide a conducive environment to train students in progressive and convergent research themes. M5: Inculcate problem solving and team building skills and promote lifelong learning with a sense of societal and value based ethical responsibilities
<u>PROGRAM EDUCATIONAL OBJECTIVES</u> PEO1: Graduates will be able to demonstrate technical competency and leadership by accomplishing Engineering knowledge, mathematics, science & engineering fundamentals.

Vtu Practical Manual

R K Madhukar



Vtu Practical Manual:

Vtu Practical Manual Book Review: Unveiling the Magic of Language

In an electronic era where connections and knowledge reign supreme, the enchanting power of language has become more apparent than ever. Its ability to stir emotions, provoke thought, and instigate transformation is truly remarkable. This extraordinary book, aptly titled "**Vtu Practical Manual**," written by a highly acclaimed author, immerses readers in a captivating exploration of the significance of language and its profound effect on our existence. Throughout this critique, we shall delve into the book's central themes, evaluate its unique writing style, and assess its overall influence on its readership.

<https://ftp.barnabastoday.com/data/uploaded-files/index.jsp/Trench%20Real%20Analysis%20Solutions%20Manual.pdf>

Table of Contents Vtu Practical Manual

1. Understanding the eBook Vtu Practical Manual
 - The Rise of Digital Reading Vtu Practical Manual
 - Advantages of eBooks Over Traditional Books
2. Identifying Vtu Practical Manual
 - 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 Vtu Practical Manual
 - User-Friendly Interface
4. Exploring eBook Recommendations from Vtu Practical Manual
 - Personalized Recommendations
 - Vtu Practical Manual User Reviews and Ratings
 - Vtu Practical Manual and Bestseller Lists

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

Vtu Practical Manual Introduction

Vtu Practical Manual 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. Vtu Practical Manual Offers a vast collection of books, some of which are available for free as PDF downloads, particularly older books in the public domain. Vtu Practical Manual : 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 Vtu Practical Manual : Has an extensive collection of digital content, including books, articles, videos, and more. It has a massive library of free downloadable books. Free-eBooks Vtu Practical Manual Offers a diverse range of free eBooks across various genres. Vtu Practical Manual Focuses mainly on educational books, textbooks, and business books. It offers free PDF downloads for educational purposes. Vtu Practical Manual Provides a large selection of free eBooks in different genres, which are available for download in various formats, including PDF. Finding specific Vtu Practical Manual, especially related to Vtu Practical Manual, 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 Vtu Practical Manual, Sometimes enthusiasts share their designs or concepts in PDF format. Books and Magazines Some Vtu Practical Manual books or magazines might include. Look for these in online stores or libraries. Remember that while Vtu Practical Manual, 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 Vtu Practical Manual 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 Vtu Practical Manual 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 Vtu Practical Manual eBooks, including some popular titles.

FAQs About Vtu Practical Manual 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. Vtu Practical Manual is one of the best book in our library for free trial. We provide copy of Vtu Practical Manual in digital format, so the resources that you find are reliable. There are also many Ebooks of related with Vtu Practical Manual. Where to download Vtu Practical Manual online for free? Are you looking for Vtu Practical Manual PDF? This is definitely going to save you time and cash in something you should think about.

Find Vtu Practical Manual :

[trench real analysis solutions manual](#)

[trees wear glasses dont they](#)

triumph trophy motorcycle owners manual

trial advocacy assignments & case files second edition aspen coursebooks

triumph 650 parts manual classic motorcycles including

trip through geologic time guided answer key

tricovit para hacer crecer el cabello

tremendous tractors amazing machines

[triumph tiger 800 800xc abs complete workshop service repair manual 2010 2011 2012 2013 2014](#)

tristan isolde neu erzt german ebook

[triumph tiger 955i service repair workshop manual](#)

[triumph trophy 1200 2015 service manual spanish](#)

tresors du temps niveau avance test booklet with answer key

[triumph bonneville se 2009 owners manual](#)
~~[tree freedom rebecca caudill ebook](#)~~

Vtu Practical Manual :

4th grade scott foresman reading street learny kids - Jul 02 2022

web displaying top 8 worksheets found for 4th grade scott foresman reading street some of the worksheets for this concept are scott foresman street second grade workbook scott foresman 5th grade spelling practice fifth grade grammar scott foresman scott foresman science textbook grade 4 scott foresman grade 4 spelling scott foresman

scott foresman street lesson plans fourth grade copy - Dec 27 2021

web reading 2011 student edition grade 1 r scott foresman street lesson plans fourth grade downloaded from crm gte travel by guest eddie vanessa reading 2011 readers and writers notebook grade 5 pearson scott foresman the final installment of the reading street curriculum series reading street grade 6 comes

results for scott foresman reading street 4th grade tpt - Jul 14 2023

web this bundle has all the lessons for scott foresman reading street 2011 lessons 1 5 tri folds activities the stories included with this bundle are 1 because of winn dixie 2 lewis and clark and me 3 on the banks of plum creek 4 the horned toad prince 5

results for 4th grade social studies scott foresman tpt - Jun 01 2022

web results for 4th grade social studies scott foresman 69 results sort by relevance view list scott foresman social studies 4th grade regions ch 2 note outline created by capturing bretches this is a fill in the blank outline for the notes for ch 2 of the 4th grade scott foresman social studies regions book

scott foresman reading lesson plans worksheets reviewed - Apr 11 2023

web find scott foresman reading lesson plans and teaching resources quickly find that inspire student learning scott foresman reading lesson plans worksheets reviewed by teachers

scott foresman reading street grade 4 teaching resources tpt - Mar 10 2023

web this powerpoint presentation flows through the lesson plans by scott foresman reading street within this presentation it covers skills strategies vocabulary and guided questions as the text is read in class with students

[scott foresman practice book teacher s manual reading street grade](#) - Nov 06 2022

web jan 1 2006 love the speedy deliver the workbook has really good assignments that are age appropriate for 4th grade not only does this book give you reading comprehension skills to match the children s reading assignments it has word study and structure and research and study skills each story has about 8 10 pgs of assignments

a correlation of scott foresman reading street grade 4 - Jan 08 2023

web dec 7 2015 a correlation of scott foresman reading street grade 4 pearson diversepartners on grade 4 topics and texts building on others ideas and expressingtheir own clearly each selection lesson plan contains multipleopportunities for students to initiate andengage in partner and group discussions students discuss grade 4 topics and

welcome to reading street - Aug 15 2023

web oct 27 2011 scott foresman reading street online resources for kindergarten 6th grade updated october 27 2011 lesson plans all grades curriculum guides and alignment fourth grade unit 1 pretest exam view installation required fourth grade unit 1 pre post test parent form

scott foresman reading street common core savvas - Aug 03 2022

web scott foresman reading street common core literacy program focuses on common core state standards readying children for college and career readiness

free scott foresman street 4th grade workbook - Dec 07 2022

web scott foresman street 4th grade workbook spectrum grade 4 mar 10 2021 spectrum r grade specific for grade 4 includes focused practice for reading language arts and math mastery skills include grammar and usage parts of speech and sentence types vocabulary acquisition

scott foresman street lesson plans fourth grade pdf - Jan 28 2022

web scott foresman street lesson plans fourth grade is available in our book collection an online access to it is set as public so you can get it instantly our books collection hosts in multiple countries allowing you to get the most less latency time to download any

scott foresman reading street grade 4 pearson education - Jun 13 2023

web pearson has aligned the common core state standards to every grade level of scott foresman reading street our premier educational curriculum this correlation provides an alignment of the common core state standards to the grade 4 content in scott foresman reading street we value your partnership highly and look forward to continuing our

results for scott foresman reading street grade 4 pacing guide - Feb 26 2022

web browse scott foresman reading street grade 4 pacing guide resources on teachers pay teachers a marketplace trusted by millions of teachers for original educational resources

results for scott foresman reading street grade 4 tpt - Feb 09 2023

web this powerpoint presentation flows through the lesson plans by scott foresman reading street within this presentation it covers skills strategies vocabulary and guided questions as the text is read in class with students graphics are added to add interest and keep students involved this presentation is designed to be used over 3 or 4 days

[scott s foresman reading street units mrs inskeep s 4th grade](#) - Oct 05 2022

web marvin of the great north woods audio so you want to be president audio unit 3 the stranger audio adelina s whales audio how night came audio eye of the storm audio great kapok tree audio unit 4

[scott foresman reading street pearson education](#) - Sep 04 2022

web the scott foresman reading street homeschool bundles include the following components student edition package teacher resource dvd guide on the side examview assessment suite cd reading street delivers classic and soon to be classic literature scientifically research based instruction and a wealth of groundbreaking

[scott foresman reading street pearson education](#) - Mar 30 2022

web weekly plans and daily lessons provide small group instruction for strategic intervention below level on level scott foresman reading street grade 4 2013 4th grade 1 speaking and listening a correlation of scott foresman reading street grade 4 2013 to the oklahoma academic standards for english language arts grade 4

[looking for scott foresman reading street 4th grade lesson plans](#) - Apr 30 2022

web aug 26 2011 i am looking for lesson plans for 4th grade scott foresman reading street series can anyone help me out

scott foresman reading street grade 4 complete year ppt - May 12 2023

web the entire scott foresman reading street grade 4 all 6 units complete in this 388 page download unit 1 turning points because of winn dixie lewis and clark and me on the banks of plum creek the horned toad prince letters home from yosemite unit 2 teamwork what jo did coyote school news scene two horse heroes so you want to

foot en direct résultats foot match en direct live flashscore fr - Mar 11 2023

web flashscore fr vous offre les résultats en direct les scores de football et résultats de plus de 1000 championnats coupes et tournois de football dans le monde entier comme la premier league la ligue 1 la liga la serie a et la ligue des champions ou encore la primera division argentine la serie a brésilienne les scores en direct de la ligu

[résultats foot en direct score match en live foot mercato](#) - Sep 05 2022

web tous les matchs et rencontres de foot commentés en direct suivez chaque match en direct sur footmercato net

match en direct tous les scores de foot en direct live football - Aug 16 2023

web sep 16 2023 les matchs de football en direct résultat et score de match de foot en direct composition d équipe but et buteurs statistiques avancés pour vos paris sportifs suivez tous les matchs d aujourd'hui en direct sur votre site web matchendirect fr

[live soccer tv streaming en direct et programmes télé résultats de](#) - Jun 14 2023

web matches prochains horaires aujourd'hui demain samedi dimanche choisissez un jour leagues États unis major league soccer us open cup content transfer enc national womens socc europe ligue des champio ligue europa premier league la liga

coupe de la ligue serie a bundesliga primeira liga Éliminatoires eur content

foot actualités mercato info vidéo en continu l Équipe - Aug 04 2022

web retrouvez toute l actualité du football sur l Équipe découvrez toutes les dernières informations de transferts et mercato les classements sur tous les championnats

calendrier et résultats ligue 1 uber eats 2023 2024 l Équipe - Dec 08 2022

web sep 15 2023 ligue 1 uber eats 2023 2024 retrouvez le calendrier et les résultats de la compétition sur l Équipe menu accueil chrono directs explore tv le journal podcasts l Équipe

calendrier de l équipe de france de football equipe france fr - Jan 29 2022

web le prochain match de l équipe de france se déroule le 13 octobre 2023 contre l équipe des pays bas aux Éliminatoires du championnat d europe prochaines compétitions Éliminatoires du championnat d europe de football du 23 mars au 26 mars 2024 championnat d europe de football du 14 juin au 14 juillet 2024

live foot match ce soir et aujourd hui programme complet - May 01 2022

web match aujourd hui retrouvez la liste de tous les matchs qui se jouent aujourd hui sur cette page les rencontres sont classées par compétitions avec aussi bien les championnats que les coupes soyez certain de ne pas rater le

matchs de foot en direct les résultats des matchs d aujourd hui et de - Jul 15 2023

web les résultats de foot en direct de l Équipe recouvrent tous les scores de ligue 1 premier league bundesliga la liga serie a de la ligue des champions ligue europa ainsi

foot match en direct à la tv ce soir aujourd hui et ce week end - Mar 31 2022

web match foot en direct à la tv foot ce soir et ce week end à la tv programme tv du foot en direct à la télé tv sports fr qualifications de la coupe d afrique des nations mls coupe du monde 2022 championnat d afrique des nations copa libertadores d1 féminine coupe du monde 1982

foot en live streaming à la tv aujourd hui justwatch - Nov 07 2022

web foot football en direct tous les streaming diffusions tv en un coup d œil le football est le sport le plus populaire en france et dans le monde avec des millions de fans qui regardent les meilleurs championnats de la planète

match en direct tous les scores de foot en direct live football - May 13 2023

web les matchs de football en direct résultat et score de match de foot en direct composition d équipe but et buteurs statistiques avancés pour vos paris sportifs suivez tous les matchs d aujourd hui en direct sur votre site web matchendirect fr

football replays et résumés vidéos des matches foot l Équipe - Jul 03 2022

web football replays et résumés vidéos des matches foot l Équipe Équipe de france espoirs 2023 2024 replay amical france danemark résumé amical france danemark qualifieurs euro

football les matchs en direct et replay rmc sport - Oct 06 2022

web avec des équipes ambitieuses comme le stade rennais et le toulouse fc attendez vous à des moments de foot inoubliables de la phase de groupes à la finale pour ceux qui savent apprécier la saveur unique des surprises que réserve le football rmc sport vous invite à suivre l uefa europa conference league

sport en direct tous les résultats des matchs d aujourd hui et de - Apr 12 2023

web résultats live foot les résultats de foot en direct de l Équipe recouvrent tous les scores de ligue 1 premier league bundesliga la liga serie a de la ligue des champions ligue europa

la chaîne l Équipe en direct live tv l Équipe - Jan 09 2023

web live 1 l Équipe du soir l Équipe du soir du 8 septembre spéciale rugby live 2 volley euro h france portugal set 3 journal du golf tv golf

psg nice revivez la défaite parisienne à domicile face à des - Dec 28 2021

web 1 day ago la souffrance d ousmane dembélé sur un tackle du niçois sofiane diop lors du match de la 5e journée de ligue 1 entre le psg et nice le 15 septembre 2023 franck fife afp le couac

programme tv foot des matchs date chaîne horaire foot - Jun 02 2022

web lundi 11 septembre 19 30 national red star rouen 20 45 Éliminatoires euro portugal luxembourg 21 00 national orléans le mans 21 00 Éliminatoires coupe d afrique des nations cameroun burundi

tous les matchs et directs de la journée orange actualités - Feb 10 2023

web suivez tous les matchs et compétitions de la journée en directs ou les directs scores sur sports orange fr 16 28 football nantes om un maillot du match envoyé à l enfant agress

foot programme tv match ce soir aujourd hui et ce week end - Feb 27 2022

web match foot à la tv foot ce soir et ce week end à la tv programme tv du foot en direct à la télé

color by number addition workseets softschools com - Nov 14 2022

web bunny color by number worksheet turkey color by number addition christmas color by number addition worksheet penguin color by number worksheet easter egg color by number addition halloween color by number addition worksheet color by number worksheet

adding positive and negative numbers math salamanders - Aug 23 2023

web 4 steps to your worksheets choose your number values to add up to choose the number of questions view your sheet print your sheet optional give your worksheet a title optional write out any instructions to go at the top of the sheet number values missing addends number of questions your worksheet will appear below

solving positive and negative numbers free printable - Aug 11 2022

web here is solving positive and negative numbers a 60 equation of adding and subtracting positive and negative numbers all combinations of manipulating positive to positive numbers or negative to positive numbers including both
negative numbers color by number teacher made twinkl - Apr 19 2023

web positive and negative number calculations make number line subtraction worksheets more fun with mindful coloring a color by number activity which focuses on adding and subtracting negative numbers this could be used as a starter plenary extension revision or just general practice negative number pyramids

results for adding negative numbers coloring sheet tpt - Apr 07 2022

web includes adding subtracting multiplying and dividing with positive and negative numbers and integers comes with two options one with color matching visuals helpful for esol students and one without also comes with a colored answer sheet for students to check their answers ranging from 10 to 80

adding positive and negative integers interger worksheets - Jun 21 2023

web tweet this is a great worksheet on adding negative and positive numbers it will acquaint your student with the basic principles of integers it s aligned with common core standards for the number system for 6th and 7th grade you may also use it with other students as appropriate get worksheet

negative numbers colour by number teacher made twinkl - Oct 13 2022

web a colour by number activity activities which focuses on adding and subtracting negative numbers ideal as a starter review extension or revision this adding and subtracting negative numbers worksheet could be used as a starter review extension revision or just general practice negative number pyramids

adding positive and negative numbers worksheets cuemath - May 08 2022

web these math worksheets should be practiced regularly and are free to download in pdf formats adding positive and negative numbers worksheets math worksheets are best for testing out everything that you have learned about the topic they provide a great opportunity to test out your expertise explore the high quality math worksheets from

addition of integers worksheets k5 learning - Jul 10 2022

web adding negative numbers integer worksheets on adding positive and negative whole numbers the number of terms or difficulty increases with each worksheet but the emphasis is on the concept rather than computation

adding and subtracting negative numbers worksheets - Jun 09 2022

web here are the rules for adding or subtracting negative numbers adding a positive number is addition e g $4 + 2 = 6$
 subtracting a negative number is addition e g $4 - (-2) = 6$ adding a negative number is subtraction e g $4 + (-2) = 2$ subtracting a positive number is subtraction e g $4 - 2 = 2$

integers printable worksheets super teacher worksheets - Mar 18 2023

web shape math adding integers at the top of this worksheet there are many shapes with positive and negative numbers in them students find pairs of congruent shapes and add the numbers inside of them for example find the sum of the numbers in the trapezoids 5th through 7th grades

negative numbers worksheet math salamanders - Sep 12 2022

web negative numbers are numbers with a value of less than zero they can be fractions decimals rational and irrational numbers 13 $\frac{1}{2}$ 2 6 4 and 123 are all negative numbers we have a page dedicated to learning about negative numbers below what are negative numbers

negative numbers colour by number teacher made twinkl - Jan 16 2023

web this adding and subtracting negative numbers worksheet great for ks3 made fun with mindful colouring a colour by number worksheet which focuses on adding and subtracting negative numbers this could be used as a starter plenary extension revision or just general practice negative number pyramids

colour by negative numbers teaching resources - Dec 15 2022

web feb 22 2018 file previews pdf 34 51 kb as the title suggests this is a colouring sheet for practising adding subtracting multiplying and dividing with negative numbers unlike other maths colouring sheets each sheet only requires four different colours and therefore requires fewer teacher supplies

color by number addition best coloring pages for kids - May 20 2023

web feb 27 2018 if your little ones are learning addition these are the perfect little worksheets to help them have fun with math print all of our color by number addition coloring pages today and give them to your kids and their friends and your class we have more color by number pages including easter christmas and some for adults

add subtract multiply divide negative and positive number - Feb 05 2022

web includes adding subtracting multiplying and dividing with positive and negative numbers comes with two options one with color matching visuals helpful for esol students and one without also comes with a colored answer sheet used for students children in elementary schools more

results for coloring sheet with positive and negative numbers - Jan 04 2022

web this is an integer review pack for practice with positive and negative numbers it includes five coloring pages girl elf boy elf gingerbread man and cupcakes each sheet contains 10 problems keys are included in color and in black and white so you can choose what works best for your needs adding adding amp subtracting multiplying

integers worksheets math drills - Jul 22 2023

web this page includes integers worksheets for comparing and ordering integers adding subtracting multiplying and dividing integers and order of operations with integers if you ve ever spent time in canada in january you ve most likely experienced a

adding and subtracting negative and positive integers coloring - Feb 17 2023

web this document has 4 coloring sheets adding subtracting negative and positive integers multiplying dividing negative and positive integers all operations with negatives and positive must know order of operations create your own sheet let students create their own problems and color guide great way to differentiate

adding positive and negative numbers date period kuta software - Mar 06 2022

web adding positive and negative numbers date period find each sum 1 7 9 2 8 1 3 1 5 4 6 12 5 8 5 6 11 2 7 49 15 8 47 30 9
49 27 10 29 9 11 43 1 12 10 2 1 13 2 11 4 14 12 7 4