Thomas C. Moore

Research Experiences in Plant Physiology

A Laboratory
Manual

Second Edition



Springer-Verlag

New York Heidelberg Berlin

# Research Experiences In Plant Physiology A Laboratory Manual

**CO Houle** 

## **Research Experiences In Plant Physiology A Laboratory Manual:**

**Research Experiences in Plant Physiology** Thomas C. Moore, 1981-01-01 **Research Experiences in Plant** Physiology T.C. Moore, 2012-12-06 Research Experiences in Plant Physiology T. C. Moore, 1981-06-16 Three major changes have been made in Research Experiences in Plant Physiology in producing this second edition The format has been changed so as to minimize the number of pages and hence the cost to students hopefully without sacrifice of readability or general utility of the manual Three new exercises have been added on Phytochrome Effects in Nyctinastic Leaf Movements Exercise 26 Measurement of Leaf Water Potentials with a Pressure Chamber Exercise 27 and The Hill Reaction of Photosynthesis Exercise 28 in an effort to provide more balanced coverage of the major topics in Plant Physiology Lastly modest revisions have been made in the text and lists of references throughout the manual and in the index It is hoped that these collective changes will lead to continued wide acceptance of Research Experiences in Plant Physiology as the laboratory manual for upper division undergraduate and graduate courses in Plant Physiology The preparation of this new edition naturally has involved the invaluable assistance of several persons lowe special thanks to Mrs Ellen Witt for her patience and proficiency in retyping the entire manual To Mrs Witt Mrs Leona Nicholson and my wife Arvida I am grateful for assistance in proofreading I thank Brian D Cleary for assisting with the writing of Exercise 27 on leaf water potentials and Donald I Armstrong for his valuable criticism and suggestions regarding many of the exercises Finally I thank Mr Stephen I Danko for assisting with the testing of the new exercises Thomas C Research Experiences in Plant Physiology; A Principios Y Aplicaciones de la Fisiología Vegetal: Laboratory Manual, by Thomas C. Moore Thomas C. Moore, 1973 **Lipids and Lipid Polymers in Higher Plants** M. Tevini, H.K. Lichtenthaler, 2012-12-06 This Manual de Laboratorio. book contains a number of papers dealing with the main topics of a Symposium on Lipids and Lipid Polymers in Higher Plants held in July 1976 at the Botanical Institute of the University of Karlsruhe The symposium was organized by Professors E Heinz H K Lichtenthaler H K Mangold and M Tevini The sponsorship by the Deutsche Forschungsgemeinschaft and the Erwin Riesch Stiftung is gratefully acknowledged The intention of the Symposium was to bring together in one place scientists working in very different fields of plant lipids such as fatty acids glycolipids phospholipids prenyllipids sterols and lipid polymers The emphasis was placed on biosynthesis distribution function and physiology of the various higher plant lipids and their role in biomembranes and epidermal cell walls By combining the major contributions in this book we hope to give all plant scientists access to the recent developments in biochemistry and physiology of plant lipid metabolism The editors are very grateful to the contributors who have taken great care to present up to date reviews Karlsruhe May 1977 M TEVINI H K LICHTENTHALER Contents Section 1 Function Organization and Lipid Composition of Biomembranes Chapter 1 Functional Organization of Biomembranes P SITTE With 15 Figures A Introduction 1 B Membrane Functions 2 I Membrane Diversity 2 II Membranes as Barriers 4 III Lipids and Permeability 5 IV Specific Transport 8 V Membrane Flow and Membrane Families 9

VI General Principles of Cellular Compartmentation 10 C Membrane Biogenesis Micromolecular Evolution, Systematics and Ecology O.R. Gottlieb, 2012-12-06 For several decades botanists have been impressed by the discovery that the distribution of secondary plant substances follows the general lines of plant relationships However it soon became clear that little was to be gained from the study of individual compounds and their natural distribution Therefore more comprehensive studies were attempt ed in which the secondary chemistry of a major plant group was carefully studied and evaluated in the broader context of comparative phytochemistry Holger Erdtman's admir able work on Coniferae is the foremost example of this kind Since then there has been an upswing in the study of the biosynthesis of secondary plant substances and it has become quite customary to make use of biosynthetic knowledge in interpreting chemosystematic evidence More over since taxonomists have insisted that use be made of all potentially available evidence for building classifications it has been claimed that chemosystematics too should con sider the whole array of constituents present in a major taxon However in practice it has proved difficult to utilize fully the potential of natural product chemistry and biosynthetic studies for plant systematics and evolution because bota nists found themselves rather disorientated by the scattered often hardly accessible chemical literature and the fact that the chemical evidence was difficult for them to evaluate Although the pioneering work of ΕC Thin-Layer Chromatography, Revised And Expanded Bernard Fried, Joseph Sherma, 1999-01-04 The fourth edition of this work emphasizes the general practices and instrumentation involving TLC and HPTLC as well as their applications based on compound types while providing an understanding of the underlying theory necessary for optimizing these techniques The book details up to date qualitative and quantitative densitometric experiments on organic dyes lipids antibiotics pharmaceuticals organic acids insecticides and more Israel Journal of Botany ,1976 The Plant Detective's Manual Gonzalo M. Estavillo, Ulrike Mathesius, Michael Djordjevic, Adrienne B. Nicotra, 2014-11-03 If global challenges in food production and the impact of ever declining biodiversity are to be tackled every country will need plant biologists who have a deep understanding of plant morphology physiology and genetics and how these interact to affect plant function in changing environments These scientists will also need the capacity to use an effective and powerful set of technologies and research strategies To prepare and inspire our students to become that next generation of researchers and to instill a meaningful involvement in research we created an integrated set of laboratory investigations that we felt truly reflected the mysteries of plant biology and puzzle solving processes that we had encountered in our research experience Rather than a set of unconnected experimental activities we created a series of closely related experiments that focused on solving mysteries in the life of the plant Arabidopsis thaliana thale cress The activities charge students with finding the suspect gene responsible for the specific phenotypes of an unknown Arabidopsis mutant which are encountered when they expose the plants to different environmental stresses This we hoped would give keen but inexperienced student scientists a realistic taste of the joys and frustrations of plant science research Although thrilled by numerous university and national awards for our

innovative teaching we have been most excited by the interest in our ideas and experimental approaches from other plant science educators in Australia and overseas who are also seeking to improve their plant biology curriculum and attract more students to plant sciences. We are thus proud to present this manual as a gift to our colleagues worldwide. Here you will find a detailed collection of state of the art procedures in plant biology as well as background information on more commonly used techniques and tips for class preparation. The concepts and methods we present can be adapted to meet the specific needs and expertise of the teaching staff and provide inspiration for scaling up for larger audiences or simplifying for more junior classes. Through this publication we hope to support our teaching colleagues in making a significant impact on improving the learning experience of plant biology students worldwide and hope that we will motivate and inspire a new generation of plant detectives.

Library of Congress Catalogs Library of Congress, 1976. Plant Proteomics B.d.ranjitha Kumari, 2008. Plant Physiology & Biochemistry, 1998. Laboratory Experiments in Plant Physiology Peter B. Kaufman, 1975. The

American Biology Teacher ,1994 American Book Publishing Record R.R. Bowker Company, 1978 American Book Publishing Record Cumulative, 1950-1977 R.R. Bowker Company. Department of Bibliography, 1978 Silvae Genetica Modern Experimental Biochemistry Rodney F. Boyer, 1992-12-31 KEY BENEFIT The latest edition of this successful ,1981 text provides readers with a modern and complete experience in experimental biochemistry Part I Theory and Experimental Techniques provides in depth theoretical discussion organized around important techniques A valuable reference for instructors and students it's particularly useful to instructors who prefer to use their own customized experiments Part II Experiments offers optimum flexibility through 15 tested experiments designed to accommodate the capabilities of laboratories and students at most four year schools Alternate methods are suggested and labs may be divided into manageable hour segments The book offers the latest safety and environmental precautions in each experiment to inform students and instructors of potential hazards and proper disposal of materials For anyone interested in science **Journal** of Arboriculture ,1986

Embark on a transformative journey with Written by is captivating work, Discover the Magic in **Research Experiences In Plant Physiology A Laboratory Manual**. This enlightening ebook, available for download in a convenient PDF format, invites you to explore a world of boundless knowledge. Unleash your intellectual curiosity and discover the power of words as you dive into this riveting creation. Download now and elevate your reading experience to new heights.

https://pinsupreme.com/About/detail/fetch.php/Nicholas Biddle In Greece The Journals And Letters Of 1806.pdf

# Table of Contents Research Experiences In Plant Physiology A Laboratory Manual

- 1. Understanding the eBook Research Experiences In Plant Physiology A Laboratory Manual
  - The Rise of Digital Reading Research Experiences In Plant Physiology A Laboratory Manual
  - Advantages of eBooks Over Traditional Books
- 2. Identifying Research Experiences In Plant Physiology A Laboratory 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 Research Experiences In Plant Physiology A Laboratory Manual
  - User-Friendly Interface
- 4. Exploring eBook Recommendations from Research Experiences In Plant Physiology A Laboratory Manual
  - Personalized Recommendations
  - Research Experiences In Plant Physiology A Laboratory Manual User Reviews and Ratings
  - Research Experiences In Plant Physiology A Laboratory Manual and Bestseller Lists
- 5. Accessing Research Experiences In Plant Physiology A Laboratory Manual Free and Paid eBooks
  - Research Experiences In Plant Physiology A Laboratory Manual Public Domain eBooks
  - Research Experiences In Plant Physiology A Laboratory Manual eBook Subscription Services
  - Research Experiences In Plant Physiology A Laboratory Manual Budget-Friendly Options

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

#### Research Experiences In Plant Physiology A Laboratory Manual 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 Research Experiences In Plant Physiology A Laboratory Manual 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 Research Experiences In Plant Physiology A Laboratory Manual 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 Research Experiences In Plant Physiology A Laboratory Manual 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 Research Experiences In Plant Physiology A Laboratory 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 webbased 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, guizzes, and activities, enhancing the reader engagement and providing a more immersive learning experience. Research Experiences In Plant Physiology A Laboratory Manual is one of the best book in our library for free trial. We provide copy of Research Experiences In Plant Physiology A Laboratory Manual in digital format, so the resources that you find are reliable. There are also many Ebooks of related with Research Experiences In Plant Physiology A Laboratory Manual. Where to download Research Experiences In Plant Physiology A Laboratory Manual online for free? Are you looking for Research Experiences In Plant Physiology A Laboratory Manual PDF? This is definitely going to save you time and cash in something you should think about. If you trying to find then search around for online. Without a doubt there are numerous these available and many of them have the freedom. However without doubt you receive whatever you purchase. An alternate way to get ideas is always to check another Research Experiences In Plant Physiology A Laboratory Manual. This method for see exactly what may be included and adopt these ideas to your book. This site will almost certainly help you save time and effort, money and stress. If you are looking for free books then you really should consider finding to assist you try this. Several of Research Experiences In Plant Physiology A Laboratory Manual are for sale to free while some are payable. If you arent sure if the books you would like to download works with for usage along with your computer, it is possible to download free trials. The free guides make it easy for someone to free access online library for download books to your device. You can get free download on free trial for lots of books categories. Our library is the biggest of these that have literally hundreds of thousands of different products categories represented. You will also see that there are specific sites catered to different product types or categories, brands or niches related with Research Experiences In Plant Physiology A Laboratory Manual. So depending on what exactly you are searching, you will be able to choose e books to suit your own need. Need to access completely for Campbell Biology Seventh Edition book? Access Ebook without any digging. And by having access to our ebook online or by storing it on your computer, you have convenient answers with Research Experiences In Plant Physiology A Laboratory Manual To get started finding Research Experiences In Plant Physiology A Laboratory Manual, you are right to find our website which has a comprehensive collection of books online. Our library is the biggest of these that have literally hundreds of thousands of different products represented. You will also see that there are specific sites catered to different categories or niches related with Research Experiences In Plant Physiology A Laboratory Manual So depending on what exactly you are searching, you will be able tochoose ebook to suit your own need. Thank you for reading Research Experiences In Plant Physiology A Laboratory Manual. Maybe you have knowledge that, people have search numerous times for their favorite readings like this Research Experiences In Plant Physiology A Laboratory Manual, but end up in harmful downloads. Rather than reading a good book with a cup of coffee in the afternoon, instead they juggled with some harmful bugs inside their laptop. Research Experiences In Plant Physiology A Laboratory Manual is available in our book collection an online access to it is set as public so you can download it instantly. Our digital library spans in multiple locations, allowing you to get the most less latency time to download any of our books like this one. Merely said, Research Experiences In Plant Physiology A Laboratory Manual is universally compatible with any devices to read.

# Find Research Experiences In Plant Physiology A Laboratory Manual:

nicholas biddle in greece the journals and letters of 1806
new zealand naval vessels
new york times skillbuilder crosswords one-star beginner level
new zealand south island what to see and do where to stay
new york city street smarts
new york times quide to new york city 2002

nfl 1994 kansas city chiefs team video
new ways in teacher education
new zealand oxford primary school dictionary
news you can use 101 sermon illustrations
ni hao 4 workbook simplified version
next-generation attack fighter
new york times everyday dictionary
nicaragua americas new vietnam
next an actors guide to auditioning

## **Research Experiences In Plant Physiology A Laboratory Manual:**

Ryobi 790r Manuals Ryobi 790r Pdf User Manuals. View online or download Ryobi 790r Operator's Manual. ... Brand: Ryobi | Category: Trimmer | Size: 5.62 MB. Table of Contents ... Ryobi Outdoor 790r Trimmer User Manual Garden product manuals and free pdf instructions. Find the user manual you need for your lawn and garden product and more at ManualsOnline. Know Your Unit - Ryobi 790r Operator's Manual [Page 7] Ryobi 790r Manual Online: Know Your Unit. APPLICATIONS As a trimmer: • Cutting grass and light weeds • Edging • Decorative trimming around trees, fences, ... Ryobi 790r Operator's manual - Internet Archive Nov 17, 2020 — RYOBI. 780r-790r 2-Cycle Gas Trimmer/Brushcutter. FOR QUESTIONS, CALL 1-800-345-8746 in U.S. or 1-800-265-6778 in CANADA. www.ryobi.com. Ryobi 790r User Manual | 76 pages Operator's manual, Cycle gas trimmer/brushcutter, 780r • Read online or download PDF • Ryobi 790r User Manual. Ryobi 775r 790r 2-Cycle Gas Trimmer/Brushcutter (769-00891) Ryobi 780r, 790r, Rack-Mount Workstation Operator's Manual 780r-790r. 2-Cycle Gas Trimmer/Brushcutter. OPERATOR'S MANUAL. FOR QUESTIONS, CALL 1-800-345-8746 in U.S. or. 1-800-265-6778 in CANADA. www.ryobi.com ... Product Manuals < Service & Support RYOBI specializes in making profeatured power tools and outdoor products truly affordable. RYOBI is the brand of choice for millions of homeowners and ... Ryobi 790r Operator's Manual - Trimmer | Download Ryobi 790r Manual (Total Pages: 80) for free in PDF. Find more compatible user manuals for your Ryobi 790r Trimmer device. Free Ryobi Trimmer User Manuals | ManualsOnline.com Ryobi Trimmer 780r. Ryobi 2-Cycle Gas Trimmer/Brush Cutter Operator's Manual. Pages: 76. See Prices. Ryobi Trimmer 790r. Ryobi 2-Cycle Gas ... Ma1210 College Mathematics Quiz 3 Answers Pdf Page 1. Ma1210 College Mathematics Quiz 3 Answers Pdf. INTRODUCTION Ma1210 College Mathematics Quiz 3. Answers Pdf [PDF] MA 1210: College Mathematics 1 - ITT Tech Access study documents, get answers to your study questions, and connect with real tutors for MA 1210: College Mathematics 1 at ITT Tech. Numbers and operations: Quiz 3 Learn for free about math, art, computer programming,

economics, physics, chemistry, biology, medicine, finance, history, and more ... Ouiz 3. Loading... grade 7 math guiz bee reviewer pdf grade 7 math quiz bee reviewer pdf. Here is the Downloadable PDF that consists of Fun Math questions.9k views. 6th grade reading eog practice, maths guiz with answers pdf free mathematics guestions with answers Maths Quiz Questions (With Answers) Ma1210 College Mathematics Quiz 3 Answers Pdf For Free. Only one of the answers ... Quiz 3.docx - Math 112 Quiz 3 For questions 1-12 find the... View Test prep - Quiz 3.docx from MATH 112 at Brigham Young University, Idaho. Math 112 Quiz 3 For guestions 1-12, find the following limits without a ... Quiz 3 - SOLUTIONS -1 (pdf) Oct 9, 2023 — Mathematics document from University of Toronto, 5 pages, Name ... Test HESI A2 Math Questions Quizlet. Screenshot 2023-09-14 at 7.43.05 PM ... Math guiz for grade 7 pdf Balance math algebra trivia 8th grade guiz guestions and answers 8th grade math quizzes . ... Ma1210 College Mathematics Quiz 3 Answers Pdf For Free. 2021 . Time ... MA120 Survey of College Math | Montgomery College, Maryland MA120 Survey of College Math. ... Practice Quiz 3 (Sections 3.1 and 3.2) (PDF, Get Adobe Acrobat PDF Reader ... Product Information | Stanford 10—Level Primary 3 Stanford 10 Level Primary 3 is available for homeschoolers and private school students in grades K-12. Purchase one today to find out how your student is doing ... Stanford Practice Test: Primary 3 (for school purchase) When ordering Stanford 10 test support materials, please consult our Stanford 10 page to learn about recent changes to Stanford scoring costs and timing. Grade 3 Spring /4 Fall Stanford 10 Achievement Test Kit ... Grade 3 Spring /4 Fall Stanford 10 Achievement Test Kit (Publisher Scoring) ... BJU Press is now offering Stanford 10 paper/pencil with Pearson's scoring services ... Grade 3 Spring Stanford 10 Achievement Test Kit ... The achievement test covers all subtests and content of the Stanford 10 Primary 3: Word Study Skills, Reading Vocabulary, Reading Comprehension, Mathematics ... Stanford 10 Online Grade 3 Spring (Prim 3) This is an online standardized test for Stanford Grade 3. This test uses the Primary 3 level. Subtests Include. The Stanford Grade 3 Test covers word study ... Stanford Practice Tests - Stanford 10 Prep Stanford Practice Tests prepare students for what to expect on test day and increase their confidence in taking the Stanford 10 Online test ... Primary 3, 3rd ... SAT10 Stanford Achievement Test Series 10th Edition SAT10 Forms A/D Primary 3 Practice Tests Qty 10 (Print). 0158770870 Qualification Level B. Includes test directions, different types of items, and answer ... Stanford 10 The Stanford 10 Online is a nationally standardized achievement test for Grades 3 Spring-12. The Stanford Test has been a standard of excellence in ... Stanford Achievement Test - Homeschool Testing Each spelling item consists of one sentence with three underlined words and, starting at Primary 3, a "No Mistake" option. Misspellings used reflect students' ... Stanford Achievement Test Series | Stanford 10 The recommended levels for SAT10 are provided below according to grade level and time of year. ... Primary 3, Intermediate 1. 5, Intermediate 1. Intermediate 2. 6 ...