

Part B

across QR?
across PR?
across PS?



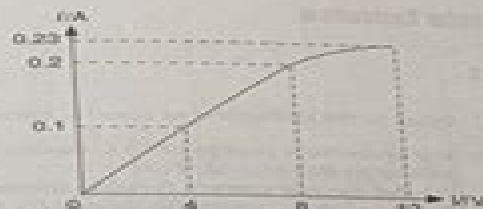
a resistor of resistance $5 \times 10^3 \Omega$.

tor in 20 s, and
ough the resistor in 20 s,
0 °C]



10°

A student performed an experiment to investigate Ohm's Law using the circuit shown. A graph of current I was plotted using the results obtained.



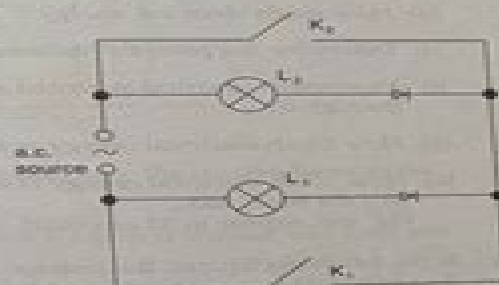
- What is the range of current for which Ohm's law is obeyed?
- Suggest a reason why Ohm's law is not obeyed outside this range.

a) 4 – 12 A

b) Temperature of the filament has increased. Hence the resistance increases.

Which of the two lamps L_1 and L_2 in the figure shown will light up when

- L_1 is opened and K_2 is closed?
- K_1 is opened and K_2 is closed?
- both K_1 and K_2 are opened?
- both K_1 and K_2 are closed?



- L_1 lights up.
- L_2 lights up.
- None of them lights up.
- None of them lights up.

O Level Physics Revision Guide

WJ Hussar



O Level Physics Revision Guide:

Embark on a transformative journey with Explore the World with is captivating work, Discover the Magic in **O Level Physics Revision Guide** . This enlightening ebook, available for download in a convenient PDF format Download in PDF: , 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://crm.avenza.com/public/detail/default.aspx/Scott_Foresman_Math_6.pdf

Table of Contents O Level Physics Revision Guide

1. Understanding the eBook O Level Physics Revision Guide
 - The Rise of Digital Reading O Level Physics Revision Guide
 - Advantages of eBooks Over Traditional Books
2. Identifying O Level Physics Revision Guide
 - 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 O Level Physics Revision Guide
 - User-Friendly Interface
4. Exploring eBook Recommendations from O Level Physics Revision Guide
 - Personalized Recommendations
 - O Level Physics Revision Guide User Reviews and Ratings
 - O Level Physics Revision Guide and Bestseller Lists
5. Accessing O Level Physics Revision Guide Free and Paid eBooks
 - O Level Physics Revision Guide Public Domain eBooks
 - O Level Physics Revision Guide eBook Subscription Services
 - O Level Physics Revision Guide Budget-Friendly Options

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

O Level Physics Revision Guide Introduction

In the digital age, access to information has become easier than ever before. The ability to download O Level Physics Revision Guide has revolutionized the way we consume written content. Whether you are a student looking for course material, an avid reader searching for your next favorite book, or a professional seeking research papers, the option to download O Level Physics Revision Guide has opened up a world of possibilities. Downloading O Level Physics Revision Guide provides numerous advantages over physical copies of books and documents. Firstly, it is incredibly convenient. Gone are the days of carrying around heavy textbooks or bulky folders filled with papers. With the click of a button, you can gain immediate access to valuable resources on any device. This convenience allows for efficient studying, researching, and reading on the go. Moreover, the cost-effective nature of downloading O Level Physics Revision Guide has democratized knowledge. Traditional books and academic journals can be expensive, making it difficult for individuals with limited financial resources to access information. By offering free PDF downloads, publishers and authors are enabling a wider audience to benefit from their work. This inclusivity promotes equal opportunities for learning and personal growth. There are numerous websites and platforms where individuals can download O Level Physics Revision Guide. These websites range from academic databases offering research papers and journals to online libraries with an expansive collection of books from various genres. Many authors and publishers also upload their work to specific websites, granting readers access to their content without any charge. These platforms not only provide access to existing literature but also serve as an excellent platform for undiscovered authors to share their work with the world. However, it is essential to be cautious while downloading O Level Physics Revision Guide. Some websites may offer pirated or illegally obtained copies of copyrighted material. Engaging in such activities not only violates copyright laws but also undermines the efforts of authors, publishers, and researchers. To ensure ethical downloading, it is advisable to utilize reputable websites that prioritize the legal distribution of content. When downloading O Level Physics Revision Guide, users should also consider the potential security risks associated with online platforms. Malicious actors may exploit vulnerabilities in unprotected websites to distribute malware or steal personal information. To protect themselves, individuals should ensure their devices have reliable antivirus software installed and validate the legitimacy of the websites they are downloading from. In conclusion, the ability to download O Level Physics Revision Guide has transformed the way we access information. With the convenience, cost-effectiveness, and accessibility it offers, free PDF downloads have become a popular choice for students, researchers, and book lovers worldwide. However, it is crucial to engage in ethical downloading practices and prioritize personal security when utilizing online platforms. By doing so, individuals can make the most of the vast array of free PDF resources available

and embark on a journey of continuous learning and intellectual growth.

FAQs About O Level Physics Revision Guide 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, quizzes, and activities, enhancing the reader engagement and providing a more immersive learning experience. O Level Physics Revision Guide is one of the best book in our library for free trial. We provide copy of O Level Physics Revision Guide in digital format, so the resources that you find are reliable. There are also many Ebooks of related with O Level Physics Revision Guide. Where to download O Level Physics Revision Guide online for free? Are you looking for O Level Physics Revision Guide 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 O Level Physics Revision Guide. 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 O Level Physics Revision Guide 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 O Level Physics Revision Guide. 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 O Level Physics Revision Guide To get started finding O Level Physics Revision Guide, 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 O Level Physics Revision Guide So depending on what exactly you are searching, you will be able to choose ebook to suit your own need. Thank you for reading O Level Physics Revision Guide. Maybe you have knowledge that, people have search numerous times for their favorite readings like this O Level Physics Revision Guide, 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. O Level Physics Revision Guide 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, O Level Physics Revision Guide is universally compatible with any devices to read.

Find O Level Physics Revision Guide :

[scott foresman math 6](#)

[scope of life science paper 1 grade 11 2014](#)

[scott foresman social studies regions study guide](#)

[scipad biology level1 answers](#)

[science sol review guide fairfax](#)

scope for geography paper 1 grade 10

scottie dog quilt patterns

scipad physic level answers

[science spectrum physical science chapter 13 practice answers](#)

scientific atlantic dvr manual

[score never tear us apart inxs](#)

scope magnification guide

scott nxg7 user manual

scope for geography june exam 2015 grade12 paper1

scope for grade economics paper 2014

O Level Physics Revision Guide :**fluid mechanics 7th edition textbook solutions** - Feb 01 2023

web aug 13 2023 download fluid mechanics 8th edition by white solutions manual access fluid mechanics 8th edition by white solutions

fluid mechanics solution manual chegg com - Apr 03 2023

web step by step video answers explanations by expert educators for all fluid mechanics 7th by frank m white only on numerade com

fluid mechanics 8th edition white soluti chapter 2 studocu - Apr 22 2022

web solutions manual for fluid mechanics fundamentals and applications by Çengel cimbala pdf solutions manual for fluid mechanics fundamentals and applications by Çengel cimbala yasın ÇekİÇ academia edu

white fluid mechanics ch7 solutions manual for fluid mechanics - Jun 24 2022

web fluid mechanics 7th edition by frank m white solution chapter 11 download as pdf file pdf text file txt or read online solution manual for chapter 11 9th edition

solutions for fluid mechanics 7th by frank m white numerade - Oct 29 2022

web after correcting for surface tension estimate the applied pressure in pa solution for water let $\gamma = 0.073 \text{ N/m}$ contact angle $\theta = 0$ and $\gamma = 9790 \text{ N/m}^3$ the capillary rise in the tube from example 1.9 of the text is then the rise due to applied pressure is less by that amount $h_{\text{press}} = 0.25 \text{ m} - 0.03 \text{ m} = 0.22 \text{ m}$

fluid mechanics 8th edition by white solutions - Aug 27 2022

web frank white frank m white is professor emeritus of mechanical and ocean engineering at the university of rhode island he studied at georgia tech and m i t in 1966 he

[fluid mechanics seventh edition by frank m white google drive](#) - Jul 26 2022

web 194 solutions manual fluid mechanics fifth edition solution the control volume of course surrounds the cone with one inlet no exits we don't need any complicated

fluid mechanics 7th edition white solution manual doc - Nov 29 2022

web a set re a 1 mm diameter steel sphere $\rho_s = 7$ is immersed in a flow of water at the speed of 0 m/s suppose we know that re 200 what would be the water temperature

solution manual for fluid mechanics 8th edition white scribd - Sep 27 2022

web fluid mechanics 8th edition white solutions manual full download testbanklive download fluid mechanics 8th edition white solutions manual full

pdf solutions manual for fluid mechanics fundamentals and - Nov 17 2021

fluid mechanics mcgraw hill - Mar 22 2022

solutions manual for white fluid mechanics udocz - Dec 19 2021

fluid mechanics frank m white solutions manual - Oct 09 2023

web fluid mechanics solution manual author frank m white language english year 2016 file size 153 2 mb total downloads 4728 total views 7 677 series mc graw

fluid mechanics 8th edition textbook solutions bartleby - Dec 31 2022

web sign in fluid mechanics seventh edition by frank m white google drive sign in

fluidos frank m white fluid mechanics solutions - Sep 08 2023

web now with expert verified solutions from fluid mechanics 8th edition you ll learn how to solve your toughest homework problems our resource for fluid mechanics includes

fluid mechanics 8th edition solutions and answers quizlet - May 04 2023

web p2 139 solution a the slope of the liquid gives us the acceleration $\tan \alpha \times 28.15 \text{ cm} / 0.13 \text{ or } 7.4 \text{ g}$ 100 cm thus $\alpha \times 0.13 \text{ g} / 0.13981128 \text{ m/s}^2$ ans $\alpha = 94$ solutions manual

download fluid mechanics solution manual by frank m white - Aug 07 2023

web fluid mechanics solutions manual get access now with get started select your edition below by 8th edition author frank white 1540 solutions available by 7th edition

solutions manual to accompany fluid mechanics - Jun 05 2023

web the eighth edition of white s fluid mechanics offers students a clear and comprehensive presentation of the material that demonstrates the progression from physical concepts to

fluid mechanics 8th edition white solutions manual - May 24 2022

web descarga gratis el pdf solutions manual for white fluid mechanics encuentra los mejores documentos de mecánica de fluidos en udocz y ayuda a miles cómo tú ingresa

fluid mechanics frank m white 7th edition solutions manual - Jan 20 2022

fluid mechanics by frank m white solution studocu - Feb 18 2022

f m white fluid mechanics 8th edition solution - Jul 06 2023

web fluid mechanics white solution manual read online for free fluid mechanics white solution manual

fluid mechanics white solution manual pdf scribd - Mar 02 2023

web f2 2 solutions manual fluid mechanics eighth edition in like manner solve for the shear stress on plane aa using our result for oxy this problem and prob p2 1 can also

prokaryotic and eukaryotic cells pogil flashcards quizlet - Nov 07 2022

web 1 24 flashcards learn test match q chat created by for quiz on 12 8 terms in this set 24 what is represented by the small dots found in each of the bacteria cells ribosomes its function is to make proteins what is the name of the outermost layer that forms a boundary around the outside of each cell the cell wall

cell organelles worksheet lcsnc org - May 01 2022

web organelle that manages or controls all the cell functions in a eukaryotic cell contains chlorophyll a green pigment that traps energy from sunlight and gives plants their green color digests excess or worn out cell parts food particles invading viruses or bacteria

prokaryotic and eukaryotic cells pogil - Apr 12 2023

web prokaryotic and eukaryotic cells pogil

organelles in eukaryotic cells pdf cell anatomy cell biology - Jan 09 2023

web organelles in eukaryotic cells what are the functions of different organelles in a cell why the cell is the basic unit and building block of all living things organisms rely on their cells to perform all necessary functions of life

pogil organelles in eukaryotic cells flashcards quizlet - Jul 15 2023

web fluid filled organelle that stores water enzymes and waste products the sizes may vary cell wall supports and protect the cell but only found in plant cells chloroplast stores food and pigment converts light energy into food glucose by a

organelles in eukaryotic cells grosse pointe public schools - Jun 14 2023

web organelles in eukaryotic cells what are the functions of different organelles in a cell why the cell is the basic unit and building block of all living things organisms rely on their cells to perform all necessary functions of life certain functions are carried out within different structures of the cell these structures are called organelles

biology 1 organelles in eukaryotic cells activity key - Aug 16 2023

web fill in the missing functions of cellular organelles in the table in model 1 starting with instructions from the factory manager dna chromosomes create a flow chart to show how a protein is produced and shipped from a cell 4 pogil activities for high school biology study the cells in model 2

organelles in eukaryotic cells pogil answer key download - Mar 31 2022

web organelles in eukaryotic cells pogil answer key downloaded from ams istanbul edu tr by guest warren manning

organelles in eukaryotic cells mcgraw hill science engineering mathematics this book presents an up to date review of the

mechanisms and regulation of translation in eukaryotes topics covered include the

eukaryotic cell structure organelles in animal plant cells - Mar 11 2023

web 1 understand the structure and function of the basic organelles of the cell 2 understand some of the relationships between these organelles 3 know the different organelles in a plant cell and their functions prerequisites

organelles in eukaryotic cells pogil flashcards quizlet - Oct 06 2022

web organelles in eukaryotic cells pogil flashcards learn test match flashcards learn test match created by shelshelswan9 terms in this set 22 nucleus contains protects dna control room verified answer chemistry use lewis symbols to show the reaction of atoms to form arsine AsH_3 3 indicate which electron pairs in

organelles in eukaryotic cells answers printable worksheets - Feb 27 2022

web showing top 8 worksheets in the category organelles in eukaryotic cells answers some of the worksheets displayed are organelles in eukaryotic cells cell ebrate science without work cell structure answers work the cell organelle work cells organelles name directions match the function organelles of cells cell organelles work 2 lecture

eukaryotic cell definition structure and organelles kenhub - Sep 05 2022

web jul 24 2023 for the purpose of this article the primary focus will be the structure and histology of the animal cell the major differences between animal and plant cells will be explored as well as previously stated the fundamental components of

answer key for pogil 8 organelles in eukaryote cells - Jun 02 2022

web organelles in eukaryotic cells 1 organelles in eukaryotic cells what are the functions of different organelles in a cell why the cell is the basic unit and building block of all living things organisms rely on their cells to perform all necessary functions of life certain functions are carried out within different structures of the cell

organelles in eukaryotic cells morganparkcps org - Feb 10 2023

web mar 6 2014 1 using the letters from the table in model 1 label the cell diagram with the organelle names 2 according to the table a what substance is analogous to a factory manager b in what organelle would this substance be found 3 using the information in question 2 which cell organelle controls the activities of the entire cell 4

organelles in eukaryotic cells answers worksheets k12 - Dec 08 2022

web showing 8 worksheets for organelles in eukaryotic cells answers worksheets are organelles in eukaryotic cells cell ebrate science without work cell

ebook organelles in eukaryotic cells pogil answers sheet - Jan 29 2022

web 1 organelles in eukaryotic cells pogil answers sheet

unit 4 cell structure transport science by the sea ms schultz - Dec 28 2021

web pogil 7 eukaryotic vs prokaryotic cells pogil 8 organelles in eukaryotic cells pogil 9 cell size pogil 10 membrane structure and function pogil 11 transport in cells pogil 12 cell cycle pogil 13 mitosis

2 3 prokaryotic and eukaryotic cells biology libretexts - Jul 03 2022

web organelles called mitochondria for example provide energy to the cell and organelles called vacuoles store substances in the cell organelles allow eukaryotic cells to carry out more functions than prokaryotic cells can this allows eukaryotic cells to have greater cell specificity than prokaryotic cells

organelles in eukaryotic cells video khan academy - Aug 04 2022

web they have ribosomes but these are not enclosed in a membrane eukaryotic cells contain various membrane bound organelles including mitochondria endoplasmic reticulum golgi apparatus lysosomes and more size prokaryotic cells generally smaller with typical sizes ranging from 0.1 to 5 micrometers

organelles in eukaryotic cells pogil flashcards quizlet - May 13 2023

web fluid filled organelle stores water enzymes and waste products the size of the organelle can change cell wall function supports and protects the cell chloroplast function to store food or pigments some convert light energy to chemical energy in

evinrude e tec 60 hp manuals manualslib - May 11 2023

web evinrude e tec 60 hp manuals manuals and user guides for evinrude e tec 60 hp we have 1 evinrude e tec 60 hp manual available for free pdf download service manual

evinrude vro 60 hp workshop manual by mikeandrews4010 issuu - Nov 05 2022

web 1984 johnson evinrude 60 brand evinrude prop shaft horsepower 60hp options electric start shaft length long 20 model run e

evinrude vro 60 hp manual luberge 2022 ams istanbul edu - Sep 22 2021

unlock the power of your evinrude 60 hp vro with the - Jul 01 2022

web aug 14 2005 re 60 hp evinrude vro alarm when i repaced my old style vro pump with the later version the wiring was different but the instructions covered how to

1984 outboard 60 e60elcre parts lookup crowley marine - Oct 04 2022

web apr 28 2018 evinrude 60 hp vro manual ppt get instant access for evinrude 60 hp vro manual ppt simply follow the link provided above and you can directly download

service manual evinrude e tec 40 60 hp fuel system fuel - Mar 29 2022

web evinrude johnson 48 235 hp ob 73 90 evinrude vro 60 hp manual luberge downloaded from ams istanbul edu tr by guest karlee dakota outboard motor service manual

1973 1991 johnson evinrude outboard 60hp 235hp service - Mar 09 2023

web 1973 1991 johnson evinrude outboard 60hp 235hp service repair manual download best johnson evinrude outboard service repair manual 1973 1991 johnson evinrude

evinrude vro 60 hp manual sentryselect investments info - Nov 24 2021

web may 7 2019 evinrude 60 hp vro outboard engine jasper pickersgill 1 subscriber subscribe 1 644 views 4 years ago evinrude outboard engine from 1989 for sale the

johnson evinrude 60 hp outboard repair manuals - Apr 29 2022

web sep 4 2020 use the evinrude diagnostics software program to test circulation pump and fuel injectors important static tests are performed when outboard is not running

specs on a 60hp evinrude vro serv - Aug 02 2022

web jun 12 2023 in this article we will take a closer look at the evinrude 60 hp vro owners manual and what vro stands for what is vro vro stands for variable ratio oiling it

evinrude 60 hp vro manual by themail38 issuu - Sep 03 2022

web skematic evinrude 60 e60tlder johnson vro 70 manual wiring for 70 hp johnson for tilt 70 hp johnson wiring diagram electrical diagram for 1990 60hp johnson 1990 johnson 60

evinrude vro 60 hp manual pdf download only support ortax - Feb 08 2023

web evinrude vro 60 hp manual pdf pages 2 3 evinrude vro 60 hp manual pdf upload herison o williamson 2 3 downloaded from support ortax org on september 3 2023 by

omc evinrude outboard service manual watercraft - Jan 07 2023

web jul 16 2003 chrysler outboard manuals evinrude outboard manuals force outboard manuals honda outboard manuals johnson outboard manuals mariner outboard

evinrude vro 60 hp manual lubege download only - Feb 25 2022

web view and download evinrude e tec 40 hp service manual online e tec 40 hp engine pdf manual download also for e tec 65 hp e tec 90 hp e tec 50 hp e tec 60 hp e tec 75

johnson evinrude 60 hp service repair manual pdf - Jul 13 2023

web johnson evinrude 60 hp outboard 1991 1994 service manual download now johnson evinrude 1 25 60 hp 1971 1989 service manual download now

evinrude vro 60 hp manual lubege full pdf ams istanbul edu - Dec 26 2021

web evinrude vro 60 hp manual view all home safety product manuals this is a great resource for people who tend to misplace important documents especially those that

60 hp evinrude vro alarm iboats boating forums - May 31 2022

web despite now discontinued johnson evinrude 60 hp outboards still power a wide range of boats around the world they are reasonably reliable and easy to repair though some

evinrude outboard motor user manuals download manualslib - Apr 10 2023

web download 149 evinrude outboard motor pdf manuals user manuals evinrude outboard motor operating guides and service manuals

best manual for 1990 60 hp evinrude vro boat repair forum - Dec 06 2022

web jun 14 2017 evinrude vro 60 hp workshop manual full evinrude vro 60 hp workshop manual pdf evinrude vro 60 hp workshop manual ppt evinrude vro 60 hp

evinrude 60 hp vro outboard engine youtube - Oct 24 2021

web evinrude johnson 48 235 hp ob 73 90 evinrude vro 60 hp manual luberge downloaded from ams istanbul edu tr by guest tapia jordyn national fisherman w h freeman

evinrude service manual free download boat yacht - Aug 14 2023

web feb 23 2019 download 2012 evinrude 40 50 60 65 75 90 hp service manual pdf evinrude 40 50 60 65 75 90 hp 2012 servi adobe acrobat document 46 9 mb

evinrude guides and information evinrude us - Jun 12 2023

web looking for evinrude owner s manuals looking for evinrude operator s guides find a dealer owners center need help my brp account austria belgium dutch belgium

evinrude e tec 40 hp service manual pdf download - Jan 27 2022

web 4 evinrude vro 60 hp manual luberge 2021 10 01 field stream springer science business media honda 2 130 hp a series 4 stroke outboards including jet drives