

13 Vectors in two dimensions

- use vectors in any form, e.g. $\begin{bmatrix} x \\ y \end{bmatrix}$, \vec{AB} , \mathbf{a} , $u\mathbf{i} - v\mathbf{j}$
 - know and use position vectors and unit vectors
 - find the magnitude of a vector; add and subtract vectors and multiply vectors by scalars
 - compose and resolve velocities
- } Separately

① Scalar Vs Vector

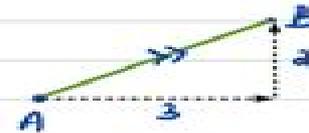
Scalar: Magnitude only (speed, distance, time)

Vector: Magnitude & direction (velocity, displacement, acceleration)

② Representation of Vectors

①

$$\vec{AB} = \begin{bmatrix} 3 \\ 2 \end{bmatrix} \begin{array}{l} \rightarrow x\text{-comp} \\ \rightarrow y\text{-comp} \end{array}$$

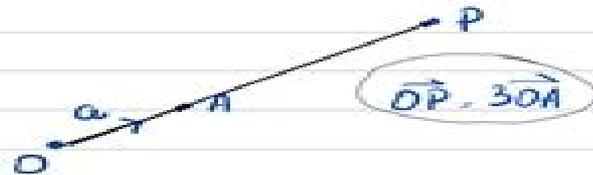


② $\vec{AB} = 3\mathbf{i} + 2\mathbf{j}$ (\mathbf{i} & \mathbf{j} form)

③

$$\vec{OA} = \mathbf{a}$$

$$\vec{OP} = 3\mathbf{a}$$



③ Magnitude: Length of a vector

$$\vec{AB} = \begin{bmatrix} x \\ y \end{bmatrix} \quad |AB| = \sqrt{x^2 + y^2}$$

Ma40sa Vectors Notes Mr F Teach

R Pring



Ma40sa Vectors Notes Mr F Teach:

Immerse yourself in heartwarming tales of love and emotion with its touching creation, Experience Love's Journey in **Ma40sa Vectors Notes Mr F Teach** . This emotionally charged ebook, available for download in a PDF format (PDF Size: *), is a celebration of love in all its forms. Download now and let the warmth of these stories envelop your heart.

https://cmsemergencymanual.iom.int/About/virtual-library/index.jsp/corporate_finance_mcgraw_hill_quiz_answers.pdf

Table of Contents Ma40sa Vectors Notes Mr F Teach

1. Understanding the eBook Ma40sa Vectors Notes Mr F Teach
 - The Rise of Digital Reading Ma40sa Vectors Notes Mr F Teach
 - Advantages of eBooks Over Traditional Books
2. Identifying Ma40sa Vectors Notes Mr F Teach
 - 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 Ma40sa Vectors Notes Mr F Teach
 - User-Friendly Interface
4. Exploring eBook Recommendations from Ma40sa Vectors Notes Mr F Teach
 - Personalized Recommendations
 - Ma40sa Vectors Notes Mr F Teach User Reviews and Ratings
 - Ma40sa Vectors Notes Mr F Teach and Bestseller Lists
5. Accessing Ma40sa Vectors Notes Mr F Teach Free and Paid eBooks
 - Ma40sa Vectors Notes Mr F Teach Public Domain eBooks
 - Ma40sa Vectors Notes Mr F Teach eBook Subscription Services
 - Ma40sa Vectors Notes Mr F Teach Budget-Friendly Options
6. Navigating Ma40sa Vectors Notes Mr F Teach eBook Formats

- ePub, PDF, MOBI, and More
 - Ma40sa Vectors Notes Mr F Teach Compatibility with Devices
 - Ma40sa Vectors Notes Mr F Teach Enhanced eBook Features
7. Enhancing Your Reading Experience
 - Adjustable Fonts and Text Sizes of Ma40sa Vectors Notes Mr F Teach
 - Highlighting and Note-Taking Ma40sa Vectors Notes Mr F Teach
 - Interactive Elements Ma40sa Vectors Notes Mr F Teach
 8. Staying Engaged with Ma40sa Vectors Notes Mr F Teach
 - Joining Online Reading Communities
 - Participating in Virtual Book Clubs
 - Following Authors and Publishers Ma40sa Vectors Notes Mr F Teach
 9. Balancing eBooks and Physical Books Ma40sa Vectors Notes Mr F Teach
 - Benefits of a Digital Library
 - Creating a Diverse Reading Collection Ma40sa Vectors Notes Mr F Teach
 10. Overcoming Reading Challenges
 - Dealing with Digital Eye Strain
 - Minimizing Distractions
 - Managing Screen Time
 11. Cultivating a Reading Routine Ma40sa Vectors Notes Mr F Teach
 - Setting Reading Goals Ma40sa Vectors Notes Mr F Teach
 - Carving Out Dedicated Reading Time
 12. Sourcing Reliable Information of Ma40sa Vectors Notes Mr F Teach
 - Fact-Checking eBook Content of Ma40sa Vectors Notes Mr F Teach
 - 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

Ma40sa Vectors Notes Mr F Teach Introduction

In the digital age, access to information has become easier than ever before. The ability to download Ma40sa Vectors Notes Mr F Teach 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 Ma40sa Vectors Notes Mr F Teach has opened up a world of possibilities. Downloading Ma40sa Vectors Notes Mr F Teach 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 Ma40sa Vectors Notes Mr F Teach 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 Ma40sa Vectors Notes Mr F Teach. 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 Ma40sa Vectors Notes Mr F Teach. 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 Ma40sa Vectors Notes Mr F Teach, 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 Ma40sa Vectors Notes Mr F Teach 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 Ma40sa Vectors Notes Mr F Teach Books

1. Where can I buy Ma40sa Vectors Notes Mr F Teach books? Bookstores: Physical bookstores like Barnes & Noble, Waterstones, and independent local stores. Online Retailers: Amazon, Book Depository, and various online bookstores offer a wide range of books in physical and digital formats.
2. What are the different book formats available? Hardcover: Sturdy and durable, usually more expensive. Paperback: Cheaper, lighter, and more portable than hardcovers. E-books: Digital books available for e-readers like Kindle or software like Apple Books, Kindle, and Google Play Books.
3. How do I choose a Ma40sa Vectors Notes Mr F Teach book to read? Genres: Consider the genre you enjoy (fiction, non-fiction, mystery, sci-fi, etc.). Recommendations: Ask friends, join book clubs, or explore online reviews and recommendations. Author: If you like a particular author, you might enjoy more of their work.
4. How do I take care of Ma40sa Vectors Notes Mr F Teach books? Storage: Keep them away from direct sunlight and in a dry environment. Handling: Avoid folding pages, use bookmarks, and handle them with clean hands. Cleaning: Gently dust the covers and pages occasionally.
5. Can I borrow books without buying them? Public Libraries: Local libraries offer a wide range of books for borrowing. Book Swaps: Community book exchanges or online platforms where people exchange books.
6. How can I track my reading progress or manage my book collection? Book Tracking Apps: Goodreads, LibraryThing, and Book Catalogue are popular apps for tracking your reading progress and managing book collections. Spreadsheets: You can create your own spreadsheet to track books read, ratings, and other details.
7. What are Ma40sa Vectors Notes Mr F Teach audiobooks, and where can I find them? Audiobooks: Audio recordings of books, perfect for listening while commuting or multitasking. Platforms: Audible, LibriVox, and Google Play Books offer a wide selection of audiobooks.
8. How do I support authors or the book industry? Buy Books: Purchase books from authors or independent bookstores. Reviews: Leave reviews on platforms like Goodreads or Amazon. Promotion: Share your favorite books on social media or recommend them to friends.
9. Are there book clubs or reading communities I can join? Local Clubs: Check for local book clubs in libraries or community centers. Online Communities: Platforms like Goodreads have virtual book clubs and discussion groups.
10. Can I read Ma40sa Vectors Notes Mr F Teach books for free? Public Domain Books: Many classic books are available for free as they're in the public domain. Free E-books: Some websites offer free e-books legally, like Project Gutenberg or Open Library.

Find Ma40sa Vectors Notes Mr F Teach :**corporate finance mcgraw hill quiz answers****cornelsen englisch buch***cure unknown inside the lyme epidemic***cscs certified in strategy and competitive analysis ima**cost accounting horngren chapter 18 solutions**corporate branding management proposal scott silver***csi construction contract administration practice***crow lake***ere handbook of food drug and cosmetic excipients ere***cummins troubleshooting and repair manual****cosmopolis don delillo****corso di linfodrenaggio e metodo vodder****criminal procedure code pakistan in urdu****control of power inverters in renewable energy and smart grid integration***cool facts about tardigrades or the water bear business***Ma40sa Vectors Notes Mr F Teach :***find out 2 primaria app piphany com - Apr 30 2022*

web find out 2 primaria recognizing the exaggeration ways to get this books find out 2 primaria is additionally useful you have remained in right site to begin getting this info

study conditions on earth may be moving outside safe operating - Oct 25 2021

web 16 hours ago a new study says that conditions on earth may be moving outside the safe operating space for humanity kim brunhuber speaks with study co author johan

find out ingilizce kelimesi ingilizce örnekler - May 12 2023

web Örnek kullanımlar i ll just go and find out what s going on outside dışarı çıkıp neler olduğunu anlayacağım you can view details of the book and find out about pricing

find out 2 primaria pdf 2023 support ortax - Jan 28 2022

web this original new book sets out to explore this shadowy terrain while there are books that offer guidelines about how the

music industries work as well as critiques from academics

find out 2 primaria e journal stp ipi ac - Sep 04 2022

web just invest little time to edit this on line declaration find out 2 primaria as competently as evaluation them wherever you are now find out 2 primaria 2021 06 05

find out definition meaning synonyms vocabulary com - Jan 08 2023

web find out 1 v find out learn or determine with certainty usually by making an inquiry or other effort find out if he speaks russian synonyms ascertain check determine

findout2primaria full pdf - Jul 02 2022

web right here we have countless book findout2primaria and collections to check out we additionally allow variant types and as a consequence type of the books to browse

find out 2 primaria uniport edu ng - Aug 03 2022

web jul 2 2023 find out 2 primaria 2 11 downloaded from uniport edu ng on july 2 2023 by guest half termly spelling tests from collins assessment with two test options per half

find out definition meaning merriam webster - Nov 06 2022

web find out verb to learn by study observation or search discover

find out wiktory the free dictionary - Dec 07 2022

web jul 23 2023 verb edit find out third person singular simple present finds out present participle finding out simple past and past participle found out idiomatic to

find out 2 primaria orientation sutd edu - Feb 09 2023

web find out 2 primaria individuals who will experience therapies that rescue vision have enough plasticity in their visual cortex to learn to see 1 institute of primary care and

find out 2 primaria uniport edu ng - Sep 23 2021

web apr 15 2023 find out 2 primaria 2 8 downloaded from uniport edu ng on april 15 2023 by guest lexical variation facilitating independent study the online answer key provides

find out 2 primaria publicaties sodexo nl - Jun 13 2023

web in a digitally driven earth where screens reign great and quick connection drowns out the subtleties of language the profound secrets and psychological subtleties concealed

the english class blog english 2 - Aug 15 2023

web english 2 english primary education 2nd all about us 2 unidades starter unit unit 1 i can unit 2 house find out 2 road safety stop cross the road

find out 2 primaria orientation sutd edu sg - Oct 05 2022

web find out 2 primaria june 24th 2018 vision smc is a local church making jesus famous by becoming more like him please use the links below to find out more about our values

find out 2 primaria uniport edu ng - Aug 23 2021

web may 11 2023 find out 2 primaria recognizing the quirk ways to acquire this ebook find out 2 primaria is additionally useful you have remained in right site to start getting this

us consumer prices continued to rise last month cnn - Jul 22 2021

web 2 days ago us inflation accelerated in august for the second straight month pushed up by rising gas prices however core inflation which strips out volatile food and energy

find out 2 primaria help environment harvard edu - Jul 14 2023

web find out 2 primaria is universally compatible subsequently any devices to read manual de gramática zulma iguina 2012 01 01 thanks to its flexibility simplicity and range

find out 2 primaria pdf pdf voto uneal edu - Mar 30 2022

web find out 2 primaria pdf upload jason i robertson 2 3 downloaded from voto uneal edu br on august 28 2023 by jason i robertson developmentally appropriate student centered

find out 2 primaria pdf cesarjcm com - Mar 10 2023

web apr 24 2023 let s find out 2 antoinette gagné 1985 sylvan summer smart workbook between grades 1 2 sylvan learning 2020 06 09 stop summer slide and get ready

find out 2 primaria pupil s book 9781405078269 - Apr 11 2023

web find out 2 primaria pupil s book 9781405078269 la llibreria huch de berga es va fundar l any 1902 com a part de l empresa familiar casa huch popularment coneguda

[find out 2 primaria pdf copy nba api lineups com](#) - Nov 25 2021

web find out 2 primaria pdf getting the books find out 2 primaria pdf now is not type of inspiring means you could not lonely going in the manner of ebook addition or library or

find out 2 primaria uniport edu ng - Dec 27 2021

web may 23 2023 find out 2 primaria 2 8 downloaded from uniport edu ng on may 23 2023 by guest ideal for children who are just beginning to read alone school days around the

find out 2 primaria uniport edu ng - Jun 01 2022

web may 9 2023 find out 2 primaria 1 1 downloaded from uniport edu ng on may 9 2023 by guest find out 2 primaria as recognized adventure as skillfully as experience

what is the past tense of find out wordhippo - Feb 26 2022

web here s the word you re looking for answer the past tense of find out is found out the third person singular simple present indicative form of find out is finds out the present

518567681 focus 2 2e workbook answers 1 vocabulary - Apr 07 2022

web overview national geographic reading and vocabulary focus is an all new four level reading series that provides the essential reading skills and vocabulary development for

ielts essay on global warming sample answer and - Jan 04 2022

web focus on vocabulary 2 student book answer key 13 b 1 distribution 2 emphasize 3 acknowledgment 4 controversy 5 accompanied 6 strategic 7 visibility 8 appreciate 9

focus on vocabulary 2 bridging vocabulary answer key and - Feb 17 2023

web reading questions and activities with answers resources contents pdf 90 kb the contents pages of focus on vocabulary learning glossary pdf 168 kb the glossary

[focus on vocabulary 2 bayanebartar](#) - Sep 24 2023

web 8 focus on vocabulary 2 student book answer key b key term word class details answers will vary 1 social position race ethnicity religion class what family gives to

focus 2 2nd ed alleng org - Oct 13 2022

web focus vocabulary 2 answer key file name focus vocabulary 2 answer key pdf size 3365 kb type pdf epub ebook category book uploaded 2022 10 08 rating 4 6 5

[focus on vocabulary 2 answer key 2740 documents doku](#) - Jul 10 2022

web focus vocabulary 2 answer key 1350 kb s 2664 focus vocabulary 2 answer key updated 5865 kb s 7327 reading explorer 3 answer key cevap anahtarı pdf 12 unit

focus on vocabulary 2 dl6 irlanguage com - Nov 02 2021

[focus on vocabulary 2 ielts city com](#) - Aug 23 2023

web focus on vocabulary 2 student book answer key b key term word class details answers will vary 1 social position race ethnicity religion class what family

focus on vocabulary 2 answer key tests answers for 2023 - Sep 12 2022

web textbook answers for focus 2 workbook the key to exercise solutions for the textbook focus 2 workbook with authors daniel brayshaw and bartosz michalowski from

focus on vocabulary 2 pdf prof - May 08 2022

web tasks 1 students own answers 1 self check vocabulary and grammar exercise 1 1 mean 2 unpopular 3 silly 4 lazy 5 dishonest exercise 2 1 deal 2 selfish 3 active 4

focus on vocabulary 2 pdf prof - May 20 2023

web pdf focus on 6 focus on vocabulary 2 student book answer key unit 1 chapter 1 reading reading comprehension page 4 1 society all the people who

focus on vocabulary 2 ebi tahasoni 8 focus on - Apr 19 2023

web focus on vocabulary 2 student book answer key 7 word families page 8 note the bolded words are the given target words a verb noun adjective adverb x

focus on vocabulary 2 answer key focus on - Mar 18 2023

web dec 10 2017 focus on vocabulary 2 mastering the academic word list is a research based vocabulary textbook that gives high intermediate to advanced students the

focus on vocabulary 2 answer key 2740 documents doku - Feb 05 2022

web re orientate the topic to climate change industrial pollution 600 global warming essay this global warming ielts essay lesson is mostly about the need to vary your

focus2 2e workbook answers pdf scribd - Dec 15 2022

web focus on vocabulary 2 answer key and tests diane schmitt norbert schmitt download on z library z library download books for free find books

focus on voc 2 answers vocabulary focus on - Jul 22 2023

web pearson education 10 bank street white plains ny 10606 staff credits the people who made up the focus on vocabulary 2 team representing editorial production design

focus on vocabulary 2 answer key and tests diane schmitt - Nov 14 2022

web language acquisition is driven by careful recycling of vocabulary and grammar focus 2 student s book 2020 159p format pdf size 11 4 mb view download drive google

reading and vocabulary focus 2 ngl elt catalog product - Mar 06 2022

web discover focus on vocabulary 2 answer key documents we have more than 2740 documents for your interest in focus on vocabulary 2 answer key

focus 2 workbook textbook answers studifor - Aug 11 2022

web discover focus on vocabulary 2 answer key documents we have more than 2740 documents for your interest in focus on vocabulary 2 answer key

focus vocabulary 2 answer key answers for 2023 exams - Jun 09 2022

web focus on vocabulary 2 student book answer key 9 chapter 3 reading reading comprehension page 27 1 families live together and cooperate to support the

focus on vocabulary 2 from pdf pdf scribd - Jun 21 2023

web focus on vocabulary 2 from ielts2 com pdf free ebook download as pdf file pdf text file txt or read book online for free
focus on vocabulary learning teaching resources oxford - Jan 16 2023

web 4 spacious 2 wardrobe 2 england s most unusual 5 gardening duke exercise 2 exercise 3 3 wood 1 fast 1 fly f 4 glass
exercise 2 2 early 2 sitting d 5 1 vocabulary 5 on the top floor

focus on vocabulary 2 00 00 00 00000 - Dec 03 2021

web 8 focus on vocabulary 2 student book answer key b key term word class details answers will vary 1 social position race ethnicity religion class what family gives to

free shipping and packing templates smartsheet - Jun 12 2023

in conclusion the logistics tracking template provides real time status it gives chain allowing adjustments to be made as needed a logistic tracking system enables see more

how to track almost anything with excel list templates - May 11 2023

web may 5 2021 a shipment tracking excel template is a pre designed spreadsheet created in microsoft excel that helps users track and manage their shipments it provides a convenient way to record and monitor important information related to shipments such as tracking numbers carrier details shipment dates destinations and status updates

order delivery tracking template excel excel templates - Nov 05 2022

web take inventory of your products and possessions with free inventory templates customize these templates to keep track and count items for your home or business create

shipment tracking excel template order delivery - Jul 13 2023

the first and foremost benefit of logistic tracking is both businesses and clients are aware of the current situation they can know that if shipment got delivered see more

track business expenses with excel learn at microsoft create - Dec 26 2021

track your expenses the easy way with excel microsoft 365 - Nov 24 2021

find the right app microsoft appsource - Mar 29 2022

web mar 24 2023 track your expenses the easy way with excel through customizable spreadsheets microsoft excel makes it easy to create an expense tracker that fits all your needs whether you re modifying a template or starting from scratch here

are some elements to consider in your expense tracking spreadsheet

how to create an excel shipping tracking - Apr 10 2023

web 1 find the perfect excel template search spreadsheets by type or topic or take a look around by browsing the catalog select the template that fits you best whether it s a planner tracker calendar budget invoice or something else 2 customize your creation use microsoft excel to make your spreadsheet unique

inventory templates microsoft create - Jul 01 2022

web may 1 2023 excel spreadsheet templates are a great tool to track the costs time and performance of your team we ve collected projectmanager s 15 best excel spreadsheet templates for tracking that you can download and use for free 1 dashboard template

shipment tracking excel template order and delivery - Jan 27 2022

planners trackers design templates microsoft create - Aug 14 2023

here are 5 steps that will help you how to create logistics tracking step 1 firstly use an appropriate format and formula select the format that can work for see more

shipments tracking template free excel shippypro - Mar 09 2023

web order delivery tracking template excel referral to the meaning of tracking delivery tracking is the process of updated information seeking regarding the position of delivery as well as a record for delivery dates a note of sender and receiver and many other things

15 excel spreadsheet templates for tracking tasks costs and - Apr 29 2022

web aug 27 2023 keeping track of your business expenses is easy with the right excel template become financially responsible and learn how to track business expenses in excel create

logistics tracking template excel pdf excel tmp - Sep 15 2023

the tracking system is self explanatory it enables you to get updated on where every product or shipping is while logistics are known as the management flow of goods according to investopedia the flow is from the warehouse to the delivery location so when you combine both terms it means to manage see more

15 excel spreadsheet templates for tracking tasks costs and - Oct 24 2021

how to manage couriers and delivery drivers with - Dec 06 2022

web may 26 2021 the benefits of shipment tracking template excel are as follows it allows you have an overview of status and routing information of the shipment shipment tracking template excel helps in the trust building with the customers this

template shows the authentication of the shipment company

tracking shipments excel template managementcontroller com - Oct 04 2022

web jul 28 2022 no problems awesome excel templates and spreadsheets for more information please visit

managementcontroller com excel templates excelspreadsheets

shipment tracking template excel order delivery - Aug 02 2022

web package tracker from lovely api lets you track shipments of your fedex ups usps dhl and japan post packages in excel

simply enter packagetracker status my tracking number true to get the full history or packagetracker status my tracking

number false to get only the latest status

excel design templates microsoft create - Feb 08 2023

web with the excel shipments management template you can relax your mind by planning and tracking your deliveries view

your shipment data by delivery person or customer or search your delivery database for particular shipment information such

as delay notifications and shipment status

15 excel spreadsheet templates for tracking tasks costs and - Feb 25 2022

web may 1 2023 get started for free excel spreadsheet templates are a great tool go track of costs time and driving of your

team we ve collected projectmanager s 15 best outdo chart templates for tracking that you can download and use for free 1

dashboards template

shipping and receiving excel template simple sheets - Jan 07 2023

web apr 15 2021 download project risk register template excel shipment tracking excel template can helps you to track

inventory in real time you can track purchases when it reached in the warehouse and also track sales when the order is

delivered what is track and trace shipment tracking excel template

shipment tracking excel template order delivery - Sep 03 2022

web may 1 2023 excel spreadsheet templates can a great tool to laufbahn the costs time and performance of your team we

ve collected projectmanager s 15 your excel spreadsheets templates for tracing that you can download furthermore exercise

for release logistics report template in excel

tracking shipments excel template youtube - May 31 2022

web shipment tracker template delivery and order excel in order to fully customize and best shipment tracking template for

order and delivery schedule management you have to look at this excel spreadsheet template through this template you

almost complete your product order to deliver life cycle to the end customer