

(i) If $(\bar{A})^t = -A$ then A is called

- (a) Symmetric matrix (b) Skew symmetric matrix (c) Hermitian matrix (d) Skew Hermitian matrix

(ii) If W is a linear subspace of V then

- (a) $\dim(W) \leq \dim(V)$ (b) $\dim(W) \geq \dim(V)$ (c) $\dim(W) = \dim(V)$ (d) None of these

(iii) A set of linear equations is represented by the matrix equation $Ax = b$. The necessary condition for the existence of a solution for this system is

- (a) A must be invertible (b) b must be linearly depended on the columns of A (c) b must be linearly independent on the columns of A (d) none of these

(iv) A unit vector orthogonal to both $(1, 1, 2)$ and $(0, 1, 3)$ in R^3 is -----

- (a) $\left(\frac{1}{\sqrt{11}}, \frac{-3}{\sqrt{11}}, \frac{1}{\sqrt{11}}\right)$ (b) $\left(\frac{-1}{\sqrt{11}}, \frac{3}{\sqrt{11}}, \frac{1}{\sqrt{11}}\right)$ (c) $\left(\frac{2}{\sqrt{11}}, \frac{-3}{\sqrt{11}}, \frac{-1}{\sqrt{11}}\right)$ (d) $\left(\frac{-1}{\sqrt{11}}, \frac{-3}{\sqrt{11}}, \frac{1}{\sqrt{11}}\right)$

(v) The characteristic polynomial of the matrix $\begin{pmatrix} 2 & 0 \\ 0 & 0 \end{pmatrix}$ is.....

- (a) $\dim(W) = \dim(V)$ (b) $p(\lambda) = (2 - \lambda)(3 - \lambda)$ (c) $p(\lambda) = 0$ (d) None of these

(vi) The property $\forall a, b \in R$ then $a + b = b + a = b \in R$ then a is called

- (a) Identity (b) Inverse (c) Conjugate (d) None of these

(vii) The subspace of R^3 spanned by the vector (a, b, c) is -----

- (a) $x = t, y = bt, z = ct$ (b) $x = -at, y = -bt, z = -ct$ (c) $x = at, y = bt, z = ct$ (d) None of these

(viii) Let R^3 be the vector space of all ordered triples of real numbers. Then the transformation $T: R^3 \rightarrow R^3$ defined by $T(x, y, z) = (x, y, z)$ is

- (a) Identity (b) Not Linear (c) Rational (d) None of these

(ix) A linear transformation T that is both one-one and onto is has $\text{Ker}(T)$

- (a) 0 (b) 1 (c) 2 (d) None of these

(x) Let V be vector space of finite dimension n. Then any $n+1$ or more vectors in V is -----

- (a) linearly dependent (b) linearly independent (c) both (a) and (b) (d) none of these.

Maths Past Papers And Answers Friday 7 Nov 2014

G Psacharopoulos



Maths Past Papers And Answers Friday 7 Nov 2014:

Embark on a transformative journey with Explore the World with is captivating work, Grab Your Copy of **Maths Past Papers And Answers Friday 7 Nov 2014** . 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://staging.conocer.cide.edu/public/detail/HomePages/Human%20Factors%20In%20Quality%20Assurance%20Wiley%20Series%20In%20Human%20Factors.pdf>

Table of Contents Maths Past Papers And Answers Friday 7 Nov 2014

1. Understanding the eBook Maths Past Papers And Answers Friday 7 Nov 2014
 - The Rise of Digital Reading Maths Past Papers And Answers Friday 7 Nov 2014
 - Advantages of eBooks Over Traditional Books
2. Identifying Maths Past Papers And Answers Friday 7 Nov 2014
 - 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 Maths Past Papers And Answers Friday 7 Nov 2014
 - User-Friendly Interface
4. Exploring eBook Recommendations from Maths Past Papers And Answers Friday 7 Nov 2014
 - Personalized Recommendations
 - Maths Past Papers And Answers Friday 7 Nov 2014 User Reviews and Ratings
 - Maths Past Papers And Answers Friday 7 Nov 2014 and Bestseller Lists
5. Accessing Maths Past Papers And Answers Friday 7 Nov 2014 Free and Paid eBooks
 - Maths Past Papers And Answers Friday 7 Nov 2014 Public Domain eBooks
 - Maths Past Papers And Answers Friday 7 Nov 2014 eBook Subscription Services

- Maths Past Papers And Answers Friday 7 Nov 2014 Budget-Friendly Options
- 6. Navigating Maths Past Papers And Answers Friday 7 Nov 2014 eBook Formats
 - ePub, PDF, MOBI, and More
 - Maths Past Papers And Answers Friday 7 Nov 2014 Compatibility with Devices
 - Maths Past Papers And Answers Friday 7 Nov 2014 Enhanced eBook Features
- 7. Enhancing Your Reading Experience
 - Adjustable Fonts and Text Sizes of Maths Past Papers And Answers Friday 7 Nov 2014
 - Highlighting and Note-Taking Maths Past Papers And Answers Friday 7 Nov 2014
 - Interactive Elements Maths Past Papers And Answers Friday 7 Nov 2014
- 8. Staying Engaged with Maths Past Papers And Answers Friday 7 Nov 2014
 - Joining Online Reading Communities
 - Participating in Virtual Book Clubs
 - Following Authors and Publishers Maths Past Papers And Answers Friday 7 Nov 2014
- 9. Balancing eBooks and Physical Books Maths Past Papers And Answers Friday 7 Nov 2014
 - Benefits of a Digital Library
 - Creating a Diverse Reading Collection Maths Past Papers And Answers Friday 7 Nov 2014
- 10. Overcoming Reading Challenges
 - Dealing with Digital Eye Strain
 - Minimizing Distractions
 - Managing Screen Time
- 11. Cultivating a Reading Routine Maths Past Papers And Answers Friday 7 Nov 2014
 - Setting Reading Goals Maths Past Papers And Answers Friday 7 Nov 2014
 - Carving Out Dedicated Reading Time
- 12. Sourcing Reliable Information of Maths Past Papers And Answers Friday 7 Nov 2014
 - Fact-Checking eBook Content of Maths Past Papers And Answers Friday 7 Nov 2014
 - 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

Maths Past Papers And Answers Friday 7 Nov 2014 Introduction

In the digital age, access to information has become easier than ever before. The ability to download Maths Past Papers And Answers Friday 7 Nov 2014 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 Maths Past Papers And Answers Friday 7 Nov 2014 has opened up a world of possibilities. Downloading Maths Past Papers And Answers Friday 7 Nov 2014 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 Maths Past Papers And Answers Friday 7 Nov 2014 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 Maths Past Papers And Answers Friday 7 Nov 2014. 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 Maths Past Papers And Answers Friday 7 Nov 2014. 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 Maths Past Papers And Answers Friday 7 Nov 2014, 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 Maths Past Papers And Answers Friday 7 Nov 2014 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 Maths Past Papers And Answers Friday 7 Nov 2014 Books

What is a Maths Past Papers And Answers Friday 7 Nov 2014 PDF? A PDF (Portable Document Format) is a file format developed by Adobe that preserves the layout and formatting of a document, regardless of the software, hardware, or operating system used to view or print it. **How do I create a Maths Past Papers And Answers Friday 7 Nov 2014 PDF?** There are several ways to create a PDF: Use software like Adobe Acrobat, Microsoft Word, or Google Docs, which often have built-in PDF creation tools. Print to PDF: Many applications and operating systems have a "Print to PDF" option that allows you to save a document as a PDF file instead of printing it on paper. Online converters: There are various online tools that can convert different file types to PDF. **How do I edit a Maths Past Papers And Answers Friday 7 Nov 2014 PDF?** Editing a PDF can be done with software like Adobe Acrobat, which allows direct editing of text, images, and other elements within the PDF. Some free tools, like PDFescape or Smallpdf, also offer basic editing capabilities. **How do I convert a Maths Past Papers And Answers Friday 7 Nov 2014 PDF to another file format?** There are multiple ways to convert a PDF to another format: Use online converters like Smallpdf, Zamzar, or Adobe Acrobats export feature to convert PDFs to formats like Word, Excel, JPEG, etc. Software like Adobe Acrobat, Microsoft Word, or other PDF editors may have options to export or save PDFs in different formats. **How do I password-protect a Maths Past Papers And Answers Friday 7 Nov 2014 PDF?** Most PDF editing software allows you to add password protection. In Adobe Acrobat, for instance, you can go to "File" -> "Properties" -> "Security" to set a password to restrict access or editing capabilities. Are there any free alternatives to Adobe Acrobat for working with PDFs? Yes, there are many free alternatives for working with PDFs, such as: LibreOffice: Offers PDF editing features. PDFsam: Allows splitting, merging, and editing PDFs. Foxit Reader: Provides basic PDF viewing and editing capabilities. How do I compress a PDF file? You can use online tools like Smallpdf, ILovePDF, or desktop software like Adobe Acrobat to compress PDF files without significant quality loss. Compression reduces the file size, making it easier to share and download. Can I fill out forms in a PDF file? Yes, most PDF viewers/editors like Adobe Acrobat, Preview (on Mac), or various online tools allow you to fill out forms in PDF files by selecting text fields and entering information. Are there any restrictions when working with PDFs? Some PDFs might have restrictions set by their creator, such as password protection, editing restrictions, or print restrictions. Breaking these restrictions might require specific software or tools, which may or may not be legal depending on the circumstances and local laws.

Find Maths Past Papers And Answers Friday 7 Nov 2014 :

human factors in quality assurance wiley series in human factors

hunde aus porzellan

humpty & friends plc

human exceptionality school family and society

hungary politics economics and society

human resource development quarterly fall 1998

human genome evolution a volume in the human molecular genetics series

human nature in utopia zamyatins we studies in russian literature and theory hardcover

human rights and the worlds religions boston university studies in philosophy and religion volume 9

humankind emerging 4e

human rights and health care law

human heritage

humane politics and methods of inquiry

human genetic disease analysis a practical approach

human brain in dissection

Maths Past Papers And Answers Friday 7 Nov 2014 :

the technology of policing crime mapping information - Oct 05 2022

web mar 1 2008 the technology of policing crime mapping information technology and the rationality of crime control new perspectives in crime deviance and law 4

the technology of policing crime mapping information - Apr 11 2023

web mar 1 2008 the technology of policing peter k manning nyu press mar 1 2008 social science 323 pages with the rise of surveillance technology in the last decade

new camera technology presented to meridian city council - Dec 27 2021

web buy the technology of policing crime mapping information technology and the rationality of crime control 4 new perspectives in crime deviance and law by

the technology of policing crime mapping information - Apr 30 2022

web technology offers not only new tools for committing and fighting crime but new ways to look for unveil label crimes and

new ways to know watch prosecute and punish

the technology of policing crime mapping informati book - Jan 08 2023

web the technology of policing crime mapping information technology and the rationality of crime control 4 manning peter k
amazon sg books

the technology of policing crime mapping information - Dec 07 2022

web inproceedings manning2008theto title the technology of policing crime mapping information technology and the
rationality of crime control author peter k

technology and police a way to create predicting policing - Jul 02 2022

web jan 1 2011 with the rise of surveillance technology in the last decade police departments now have an array of
sophisticated tools for tracking monitoring even

peter k manning 2008 the technology of policing crime - Jun 13 2023

web jan 1 2011 the technology of policing crime mapping information technology and the rationality of crime control new
perspectives in crime deviance and law 4

ottawa police launch interactive map for crime statistics - Nov 25 2021

the technology of policing crime mapping information - Aug 03 2022

web the author and editor of some 15 books including privatization of policing two views with brian forst georgetown
university press 2000 his research interests includes

the technology of policing crime mapping information - Oct 25 2021

the technology of policing crime mapping information - Jul 14 2023

web mar 1 2018 the technology of policing crime mapping information technology and the rationality of crime control new
york new york university press isbn 13

the technology of policing crime mapping information - Mar 30 2022

web crime mapping is the process of producing a geographical representation of crime levels crime types or the locations of
particular incidents this paper aims to develop a data

from crime mapping to crime forecasting the evolution of - Sep 04 2022

web oct 15 2022 3 1 crime mapping crime mapping software is used by police to visualise and analyse in a geo referenced
manner crime patterns across space and time it is

pdf the technology of policing crime mapping informati - Mar 10 2023

web the technology of policing crime mapping informati community oriented policing and technological innovations oct 25 2020 this brief presents new approaches and

free the technology of policing crime mapping informati - Feb 26 2022

web vincent grizzell the jackson police deputy chief and tarrien williams a strategic technology consultant with the it company pileum presented information and a

the technology of policing crime mapping information - Feb 09 2023

web jan 1 2010 the purpose of this study is to conduct a literature review of geographical information system and crime mapping in crime analysis and to propose policy

the technology of policing crime mapping information - Oct 17 2023

web oct 11 2008 this is a richly textured analysis of the introduction use and effects of crime mapping technology in three police departments boston washington dc and a

the technology of policing crime mapping information - Aug 15 2023

web jan 1 2008 computer aided dispatch technical apparatus in vehicles advances in forensics at scenes of crime and with investigations and the use of computer mobile

the technology of policing crime mapping information - Nov 06 2022

web jul 10 2019 mapping law enforcement report data can be an effective way to analyze where crime occurs the resulting visual display can be combined with other geographic

crime mapping system for the royal malaysia police - Jan 28 2022

web 2 days ago the ottawa police service crime map year to date is an interactive mapping tool that allows users to filter and query selected crime types by

the technology of policing crime mapping - Sep 16 2023

web mar 1 2009 based on the technology of policing crime mapping information technology and the rationality of crime control by manning peter k new york new

the technology of policing crime mapping - May 12 2023

web crime mapping and the policing of democratic societies jul 25 2021 outlines how computerized crime mapping can help police enhance accountability to the public

the technology of policing crime mapping information - Jun 01 2022

web the technology of policing crime mapping information technology and the rationality of crime control new perspectives in crime deviance and law 4 by

observer les galaxies et les nébuleuses by philippe henarejos - Dec 26 2021

web connaissez vous les galaxies spirales la galaxie du tournesol ou la nébuleuse de la boule de neige bleue quel est l instrument d observation le mieux approprié pour les

[observer les galaxies et les na c buleuses full pdf](#) - Mar 09 2023

web observer les galaxies et les na c buleuses suitably simple observer les galaxies et les na c buleuses 2019 10 31 finn trinity european yearbook 1986 taylor

observer les galaxies et les nébuleuses by philippe henarejos - Apr 10 2023

web connaissez vous les galaxies spirales la galaxie du tournesol ou la nébuleuse de la boule de neige bleue quel est l instrument d observation le mieux approprié pour les

comment observer les galaxies et les nébuleuses webastro net - May 31 2022

web aug 10 2022 bonjour depuis que j ai reçu mon telescope je n arrive que à observer les planètes mais aucun du ciel profond j ai un nextar evolution 8 hd de chez celestron

quand les nébuleuses prennent la forme de créatures terrestres - Jul 01 2022

web comme les galaxies des souris et du marsouin celle du têtard doit sa forme à une collision galactique survenue il y a une centaine de millions d années la queue du

planète galaxie nébuleuse ce qu il est possible d observer au - Aug 02 2022

web sep 25 2018 l observation du cp est un domaine tout aussi fascinant que le planétaire mais un peu plus rigoureux les objets que l on souhaite observer bien que plus

[observer les galaxies et les nébuleuses by philippe henarejos](#) - Nov 24 2021

web observer les galaxies et les nébuleuses by philippe henarejos heavens above project avalon bob dean la awake and aware conference are there reliable methods to

observer les galaxies et les na c buleuses pdf pdf - Nov 05 2022

web le nouvel observateur 1985 universal access in human computer interaction designing novel interactions margherita antona 2017 06 28 observer les galaxies et les na

observer les galaxies et les na c buleuses 2022 old vulkk - Oct 04 2022

web et la théorie des cordes magique cosmos explore les recoins les plus déroutants de l univers et s attaque aux plus grands mystères auxquels nous sommes confrontés de

observer les galaxies et les na c buleuses pdf pdf - Sep 03 2022

web may 25 2023 observer les galaxies et les na c buleuses pdf is friendly in our digital library an online right of entry to it is set as public in view of that you can download it

observer les galaxies et les na c buleuses uniport edu - Feb 08 2023

web jun 5 2023 epoch to download any of our books later this one merely said the observer les galaxies et les na c buleuses is universally compatible taking into account any

ebook observer les galaxies et les na c buleuses - Mar 29 2022

web d observation modernes ont permis de faire des découvertes essentielles galaxies décrit tout d abord les diverses morphologies et les catégories de galaxies existantes

observer les galaxies et les nébuleuses by philippe henarejos - Feb 25 2022

web connaissez vous les galaxies spirales la galaxie du tournesol ou la nébuleuse de la boule de neige bleue quel est l instrument d observation le mieux approprié pour les

observer les galaxies et les nébuleuses by philippe henarejos - Jan 27 2022

web april 17th 2020 catalogue of galaxies and of clusters of galaxies by f zwicky et al publ california institute of technology vol 1 1961 vol 2 izvestiya na fizicheskiya institut s

observer les galaxies et les nébuleuses by philippe henarejos - Jun 12 2023

web connaissez vous les galaxies spirales la galaxie du tournesol ou la nébuleuse de la boule de neige bleue quel est l instrument d observation le mieux approprié pour les

observer les galaxies et les na c buleuses pdf uniport edu - May 11 2023

web jun 30 2023 we find the money for under as without difficulty as evaluation observer les galaxies et les na c buleuses what you later to read astronomy and astrophysics

observer les galaxies et les na c buleuses uniport edu - Dec 06 2022

web observer les galaxies et les na c buleuses 3 4 downloaded from uniport edu ng on july 16 2023 by guest galaxy evolution theory and observations 2003 matériaux et

observer les galaxies et les nébuleuses by philippe henarejos - Apr 29 2022

web connaissez vous les galaxies spirales la galaxie du tournesol ou la nébuleuse de la boule de neige bleue quel est l instrument d observation le mieux approprié pour les

pdf observer les galaxies et les na c buleuses - Aug 14 2023

web observer les galaxies et les na c buleuses cosmic pinwheels spiral galaxies and the universe jul 11 2020 the main goal of the book is to introduce the reader to the world of spiral galaxies how spirals were discovered what they represent from a physical

observer les galaxies et les nébuleuses by philippe henarejos - Jul 13 2023

web connaissez vous les galaxies spirales la galaxie du tournesol ou la nébuleuse de la boule de neige bleue quel est l instrument d observation le mieux approprié pour les

observer les galaxies et les na c buleuses uniport edu - Jan 07 2023

web feb 25 2023 observer les galaxies et les na c buleuses is approachable in our digital library an online admission to it is set as public suitably you can download it instantly

transformations in math definition types examples - Jul 01 2022

web in this topic you will learn about the most useful math concept for creating video game graphics geometric transformations specifically translations rotations reflections and

transformational geometry translations rotations reflections - May 31 2022

web sep 20 2022 this is the fifth lesson in mario s math tutoring s complete geometry course here on youtube we discuss rules for transformations such as translations ref

geometric transformation wikipedia - Oct 04 2022

web what is a transformation in geometry a transformation in geometry is the movement of a figure in a plane it could involve changing the figure s position translation orientation

transformations translations reflections rotations dilations - Mar 29 2022

web the idea of transformational geometry is that by studying the behavior of individual transformations and how different transformations interact with each other we can

unit 1 performing geometry transformations khan academy - Apr 29 2022

web oct 6 2020 reflection translation rotation transformations geometry praveen nair 550 subscribers subscribe 476 share 74k views 2 years ago math for primary

geometric transformations geometry 227 228 khan academy - Mar 09 2023

web high school geometry 9 units 90 skills unit 1 performing transformations unit 2 transformation properties and proofs unit 3 congruence unit 4 similarity unit 5 right

performing transformations high school geometry math khan - Sep 03 2022

web jan 11 2023 a transformation is a process that manipulates a polygon or other two dimensional object on a plane or coordinate system mathematical transformations

transformation geometry wikipedia - Apr 10 2023

web in this topic you will learn how to perform the transformations specifically translations rotations reflections and dilations and how to map one figure into another using these

enlargement and reduction transformations transformation - Nov 24 2021

transformation properties and proofs high school - Feb 08 2023

web why are transformations useful in writing geometric proofs we often use rigid transformations and dilations in geometric proofs because they preserve certain

geometric transformations basic geometry and measurement - Jun 12 2023

web jul 16 2015 start practicing and saving your progress now khanacademy org math geometry hs geo transformation courses on

transformation properties and proofs faq khan academy - Dec 06 2022

web in mathematics a geometric transformation is any bijection of a set to itself or to another such set with some salient geometrical underpinning more specifically it is a function

notes on transformational geometry university of kansas - Jan 27 2022

web we can use transformations to change the size of a shape to make a shape bigger we use an enlargement transformation this is sometimes referred to as stretching or

transformations math is fun - Jan 07 2023

web practice problem 1 find the value of x in the triangle shown below 20° 20° x° 74° 74° x° degree for more practice go to find angles in triangles

getting ready for transformation properties khan academy - Nov 05 2022

web in this topic you will learn about the most useful math concept for creating video game graphics geometric transformations specifically translations rotations reflections and

reflection translation rotation transformations geometry - Feb 25 2022

web jul 17 2020 real examples of performing or using transformations these include translation rotation and reflection this was developed for high school students as a

expert maths tutoring in the uk boost your scores with cuemath - Oct 24 2021

introduction to transformations transformations geometry - May 11 2023

web in mathematics transformation geometry or transformational geometry is the name of a mathematical and pedagogic take on the study of geometry by focusing on groups of

what is transformation geometry definition types rule example - Jul 13 2023

web learn about geometric transformations and how they re used to understand the meaning of similar and congruent *geometry transformations real examples youtube* - Dec 26 2021

web in the 19th century felix klein proposed a new perspective on geometry known as transformational geometry most of the proofs in geometry are based on the

transformation geometry definition with examples brighterly - Aug 02 2022

web mar 1 2012 find these videos helpful consider donating to our classroom library our amazon ca wishlist is here amazon ca registry wishlist 2j2vj9foc0jnq t

transformations geometry all content math khan academy - Aug 14 2023

web in this topic you will learn about the most useful math concept for creating video game graphics geometric transformations specifically translations rotations reflections and dilations you will learn how to perform the transformations and how to map one figure