

# Module 2A. eXeLearning as a tool for creating digital content

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*Universidá d'Uviéu*  
University of Oviedo



# Contents

1. Introduction to the use of eXeLearning.
2. eXeLearning download and installation.
3. eXeLearning work environment and structure.
4. Creation and editing of digital content using design instruments or iDevices (textual information, non-interactive activities, interactive activities, non-textual information), own design instrument, and text editor.
5. Export content created with eXeLearning.
6. Upload eXeLearning content to a course in Moodle.

# 1. Introduction to the use of eXeLearning



eLearning **X**HTML editor = **eXe**Learning

- **Editing environment specially designed for creating educational content.**
- It does **not require to have an extensive knowledge of languages** such as HTML or XML.
- It **uses standard formats** (like IMS or SCORM) widely used in learning management systems such as Moodle.
- It is an **intuitive and easy to use tool** that allows teachers to **create and publish a complete variety of educational content** (text, images, clips, tables, sounds, GeoGebra applets, etc.) on web pages or online learning environments.
- It **works without an Internet connection.**

# 2. eXeLearning download and installation



<https://exelearning.net/en/>

A screenshot of the eXeLearning website's download page. The page has a dark background with white and green text. At the top, there is a navigation bar with 'eXeLearning' on the left and 'FEATURES', 'DOWNLOADS', 'BLOG', 'HELP', 'FORUMS', 'LOGIN', and 'LANGUAGE' on the right. The 'DOWNLOADS' menu item is highlighted with a green box. Below the navigation bar, the text 'eXeLearning 2.5' is displayed in a large font, with 'Choose your OS' underneath. There are three main columns representing different operating systems: GNU/Linux, Microsoft Windows, and Apple. The GNU/Linux column includes links for Debian/Ubuntu 20.04+ (Snap), Debian/Ubuntu, Fedora/Redhat, Portable version (Linux), eXe Labs: Launchpad PPA (Linux), and Sources for building package. The Microsoft Windows column includes a link for 'Install version' (highlighted with a green box), 'Ready to run (ready2run)', and 'Portable version (Windows)'. The Apple column includes a link for 'macOS'. At the bottom of the page, there are three buttons: 'PREVIOUS VERSIONS', 'SOURCE CODE', and 'STYLES'.

eXeLearning

FEATURES DOWNLOADS BLOG HELP FORUMS LOGIN LANGUAGE

## eXeLearning 2.5

Choose your OS

### GNU/Linux

- Debian/Ubuntu 20.04+ (Snap)
- Debian/Ubuntu
- Fedora/Redhat
- Portable version (Linux)
- eXe Labs: Launchpad PPA (Linux)
- Sources for building package

### Microsoft Windows

- Install version**
- Ready to run (ready2run)
- Portable version (Windows)

### Apple




- macOS

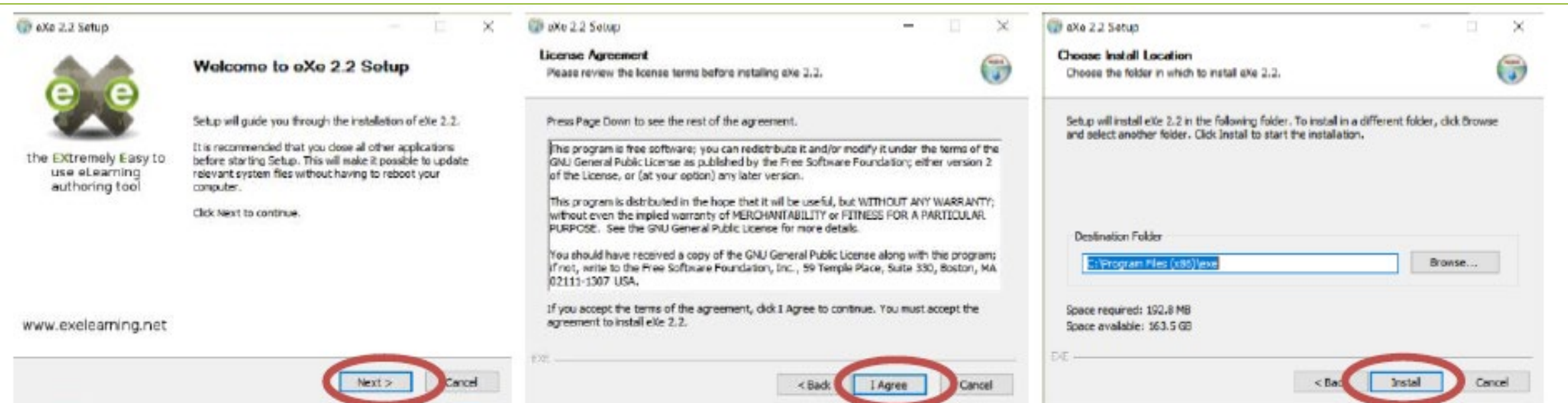
### Other downloads

PREVIOUS VERSIONS SOURCE CODE STYLES

# 2. eXeLearning download and installation



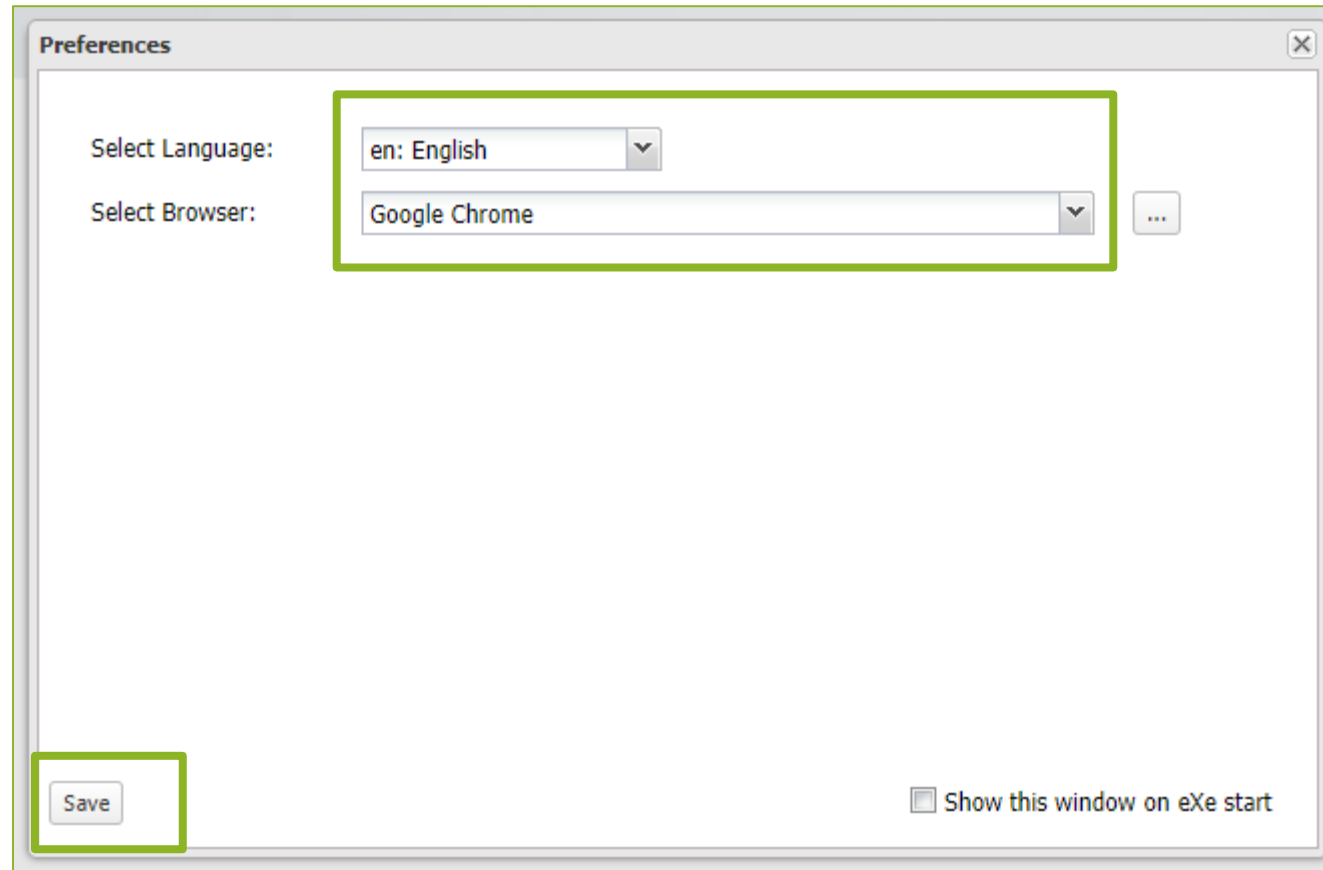
-  INTEF-eXe-install-2.2.exe
-  INTEF-exe-ready2run-2.2.exe
-  portable-INTEF-exe-2.2-win.zip



The image shows three sequential screenshots of the eXe 2.2 Setup installation wizard:

- Welcome to eXe 2.2 Setup:** The first window displays the eXe logo and the text "the Extremely Easy to use eLearning authoring tool". It provides instructions on closing other applications and clicking "Next" to continue. The "Next >" button is circled in red.
- License Agreement:** The second window shows the license terms. It includes a disclaimer: "This program is distributed in the hope that it will be useful, but WITHOUT ANY WARRANTY; without even the implied warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE." The "I Agree" button is circled in red.
- Choose Install Location:** The third window prompts the user to choose a destination folder. The default path is "C:\Program Files (x86)\exe". It also shows the space requirements: "Space required: 192.8 MB" and "Space available: 163.5 GB". The "Install" button is circled in red.

# 2. eXeLearning download and installation



# 3. eXeLearning work environment and structure



The screenshot displays the eXeLearning software interface. At the top, a menu bar includes 'File', 'Tools', 'Styles', and 'Help'. To the right of the menu bar are buttons for 'Advanced mode' and 'Preview'. Below the menu bar, there are buttons for 'Add Page', 'Delete', and 'Rename'. The interface is divided into several panels:

- Outline Panel (Left):** Contains a tree view with 'Home' listed. A green box labeled 'Content structure' highlights this panel.
- iDevices Panel (Bottom Left):** Lists 'Text and Tasks', 'Interactive Activities', and 'Other Contents'. A green box labeled 'iDevices' highlights this panel.
- Main Editing Area (Center):** Displays a 'Home' page with a blue header and a light blue background. A message box says 'Click on the elements of the left panel to add content.' A green box labeled 'Editing zone' highlights this area.

At the bottom of the interface, there is a footer with a Creative Commons license icon (CC BY-SA) and the text 'Licensed under the [Creative Commons Attribution Share Alike License 4.0](https://creativecommons.org/licenses/by-sa/4.0/)'. A large number '7' is visible in the bottom right corner.

# 3. eXeLearning work environment and structure



The screenshot displays the eXeLearning software interface. At the top, there is a menu bar with 'File', 'Tools', 'Styles', and 'Help'. On the right side of the top bar, there are checkboxes for 'Advanced mode' and a 'Preview' button. Below the menu bar, there are buttons for 'Add Page', 'Delete', and 'Rename'. The main interface is divided into two tabs: 'Content' and 'Properties'. The 'Content' tab is active, showing a large banner with the text 'Linear Algebra' on a light blue and white geometric pattern background. On the left side, there is an 'Outline' panel with a tree view structure:

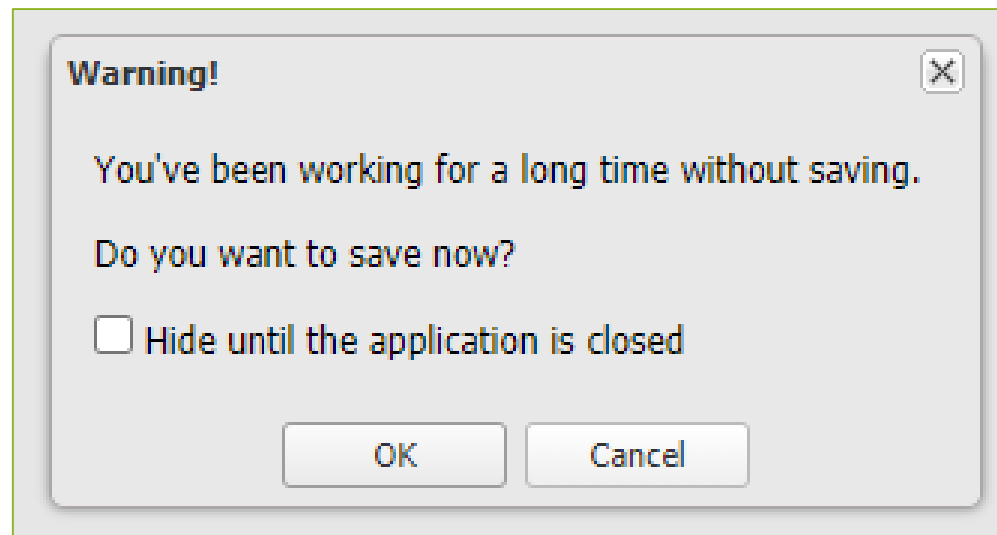
- Linear Algebra
  - 1. Vector spaces
    - 1.1. Definitions
    - 1.2. Bases
    - 1.3. Row and column vectors
    - 1.4. Change of basis
    - 1.5. Subspaces and direct sums
  - 2. Matrices and determinants
    - 2.1. Matrix algebra
    - 2.2. Row and column operations

Below the outline panel, there is a navigation bar with four icons: left arrow, right arrow, up arrow, and down arrow. At the bottom left, there is an 'iDevices' panel with a dropdown arrow, containing sections for 'Text and Tasks' (with sub-items 'Text' and 'Task'), 'Interactive Activities', and 'Other Contents'.





# Warning!



# 3. eXeLearning work environment and structure



Content Properties

Package Metadata Export

Cataloguing

Title: Linear algebra

Language: English

Description

General: This module is a mixture of abstract theory, with rigorous proofs, and concrete calculations with matrices. The abstract component builds on the notions of subspaces and linear maps to construct the theory of bilinear forms i.e. functions of two variables which are linear in each variable, dual spaces (which consist of linear mappings from the original space to the underlying field) and determinants. The concrete applications involve ways to reduce a matrix of some specific type (such as symmetric or skew-symmetric) to as near diagonal form as possible.

Objectives:

1. Solve systems of linear equations using multiple methods, including Gaussian elimination and matrix inversion.
2. Carry out matrix operations, including inverses and determinants.
3. Demonstrate understanding of the concepts of vector space and subspace.
4. Demonstrate understanding of linear independence, span, and basis.

Preknowledge:

Author: Department of Mathematics

License: creative commons: attribution - share alike 4.0

Learning Resource Type: guided reading

# 3. eXeLearning work environment and structure



**Usage**

Intended End User:  Ordinary Learner  Special Needs Learner  Gifted Learner

For Group Work:

For Individual Tuition:

Context:  Classroom  Real Environment

Modality:  Face to Face  Blended  Distance


**Taxonomy**

Level 1:

Level 2:

Level 3:

**Project Properties**

Header Background: 

Tile background image?

**Footer:** Department of Mathematics

# 4. Creation and editing of digital content

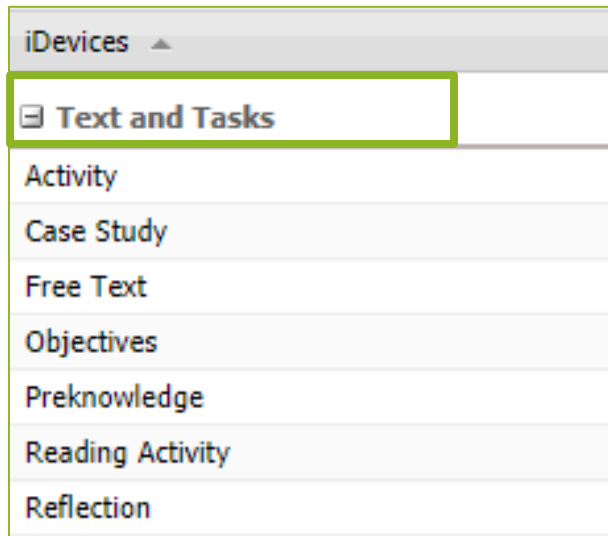


iDevices ▾
<b>Text and Tasks</b>
Activity
Case Study
Free Text
Objectives
Preknowledge
Reading Activity
Reflection

<b>Interactive Activities</b>
Cloze Activity
DropDown Activity
GeoGebra Activity
Interactive Video
Java Applet
Multi-choice
Multi-select
SCORM Quiz
Scrambled List
True-False Question

<b>Other Contents</b>
Download source file
External Web Site
File Attachments
Image Gallery
Image Magnifier
Wiki Article

# 4. Creation and editing of digital content



# 4. Creation and editing of digital content



Text and Tasks:  
Free Text

Free Text ?

Edit ▾ Insert ▾ Format ▾ Table ▾ Tools ▾

**B** *I* Paragraph ▾

These notes are about linear maps and bilinear forms on vector spaces, how we represent them by matrices, how we manipulate them, and what we use this for.

---Move To--- ▾



## 1. Vector spaces

These notes are about linear maps and bilinear forms on vector spaces, how we represent them by matrices, how we manipulate them, and what we use this for

# 4. Creation and editing of digital content



Text and Tasks:  
Objectives

Objectives  
Objectives ?

Edit ▾ Insert ▾ Format ▾ Table ▾ Tools ▾

Undo Redo Bold Italic Paragraph Bulleted List Numbered List Link Unlink Image Video Table

1. Solve systems of linear equations using multiple methods, including Gaussian elimination and matrix inversion.
2. Carry out matrix operations, including inverses and determinants.
3. Demonstrate understanding of the concepts of vector space and subspace.
4. Demonstrate understanding of linear independence, span, and basis.

✓ Copy Paste ---Move To--- ?



Linear Algebra

Objectives

- Solve systems of linear equations using multiple methods, including Gaussian elimination and matrix inversion.
- Carry out matrix operations, including inverses and determinants.
- Demonstrate understanding of the concepts of vector space and subspace.
- Demonstrate understanding of linear independence, span, and basis.
- Determine eigenvalues and eigenvectors and solve eigenvalue problems.
- Apply principles of matrix algebra to linear transformations.
- Demonstrate understanding of inner products and associated norms.





# 4. Creation and editing of digital content



Text and Tasks:  
Activity

Activity

Activity ?

Edit Insert Format Table Tools

**B** *I* Paragraph 10pt Arial A A

Consider the vector space  $\mathbb{R}^2$ , with the two bases

$$B = \left( \begin{bmatrix} 1 \\ 0 \end{bmatrix}, \begin{bmatrix} 0 \\ 1 \end{bmatrix} \right), \quad B' = \left( \begin{bmatrix} 1 \\ 1 \end{bmatrix}, \begin{bmatrix} 2 \\ 3 \end{bmatrix} \right).$$

Calculate the transition matrix and its inverse.

---Move To---

### 1.4. Change of basis

Activity

Consider the vector space  $\mathbb{R}^2$ , with the two bases

$$B = \left( \begin{bmatrix} 1 \\ 0 \end{bmatrix}, \begin{bmatrix} 0 \\ 1 \end{bmatrix} \right), \quad B' = \left( \begin{bmatrix} 1 \\ 1 \end{bmatrix}, \begin{bmatrix} 2 \\ 3 \end{bmatrix} \right).$$

[GIF](#)

Calculate the transition matrix and its inverse.

# 4. Creation and editing of digital content



Reading Activity  
What to read [Editor ?](#)

Read Corollary 1.7.

[Activity Editor ?](#)


Proof Corollary 1.7.

[Feedback Editor ?](#)

Hint. Apply Proposition 1.6.

✓ ↶ ✕ ⬆ ⬇ ---Move To--- ▼ ⓘ

Text and Tasks:  
Reading Activity

 Reading Activity

Read Corollary 1.7.

Proof Corollary 1.7.

[Hide Feedback](#)

Hint. Apply Proposition 1.6.

# 4. Creation and editing of digital content



Text and Tasks:  
Case Study

Case Study

Story: [Editor](#)

Calculate the rank of the following matrix:

$$A = \left[ \begin{matrix} 1 & 2 & 3 \\ 4 & 5 & 6 \end{matrix} \right]$$

Activity [?](#)

[Editor](#)

Solution:

We have  $A_{11} = 1$ , so we can skip the first three steps. Subtracting twice the first column from the second, and three times the first column from the third, gives the matrix


Feedback [?](#)

Button Caption:

[Editor](#)

[Calculate the rank of a different matrix following the same procedure!](#)



 Case Study

Calculate the rank of the following matrix:

$$A = \begin{bmatrix} 1 & 2 & 3 \\ 4 & 5 & 6 \end{bmatrix}$$

[GIF](#)

Solution:

We have  $A_{11} = 1$ , so we can skip the first three steps. Subtracting twice the first column from the second, and three times the first column from the third, gives the matrix

# 4. Creation and editing of digital content



Text and Tasks:  
Reflection

Reflection  
Reflective question: [Editor](#) ?

Consider the relation "equivalence" stated in Definition 2.5. Is it an equivalence relation on the set of all  $m \times n$  matrices?

Feedback: ?

Button Caption:

[Editor](#)

Hint. Proof that it is reflexive, symmetric and transitive.



---Move To---

Hide Feedback

Reflection

Consider the relation "equivalence" stated in Definition 2.5. Is it an equivalence relation on the set of all  $m \times n$  matrices?

Hint. Proof that it is reflexive, symmetric and transitive.

# 4. Creation and editing of digital content



<input type="checkbox"/> Interactive Activities
Cloze Activity
DropDown Activity
GeoGebra Activity
Interactive Video
Java Applet
Multi-choice
Multi-select
SCORM Quiz
Scrambled List
True-False Question

# 4. Creation and editing of digital content



Interactive activities:  
Cloze Activity

**Cloze Activity**  
Instructions [Editor](#) ?

Read the paragraph below and fill in the missing words.

**Cloze Text** [Editor](#) ?

Let  $V$  be a finite-dimensional vector space over a field  $K$ . Then  
(a) any two bases of  $V$  have the same number of elements ;  
(b) any linearly independent set can be extended to a basis.

Hide/Show Word     [Strict Marking?](#)     [Check Capitalization?](#)     [Instant Marking?](#)

Feedback [Editor](#) ?

---Move To---

## 1.2. Bases

### Cloze Activity

Read the paragraph below and fill in the missing words.

Let  $V$  be a finite-dimensional vector space over a field  $K$ . Then  
(a) any two bases of  $V$  have the same  ;  
(b) any linearly  set can be extended to a basis.

# 4. Creation and editing of digital content



Interactive activities:  
DropDown Activity

DropDown Activity  
Instructions [Editor ?](#)

Read and complete


Text [Editor ?](#)

Let  $V$  be a finite-dimensional vector space over a field  $K$ . Then  
(a) any two bases of  $V$  have the same number of elements ;  
(b) any linearly independent set can be extended to a basis.

Hide/Show Word

Other words [?](#)  
rank | number of rows | number of columns

Feedback [Editor ?](#)

 DropDown Activity

Read and complete

Let  $V$  be a finite-dimensional vector space over a field  $K$ . Then  
(a) any two bases of  $V$  have the same  
(b) any linearly independent set can be b

[Check](#)

number of elements  
number of rows  
rank  
number of columns

# 4. Creation and editing of digital content



Interactive activities:  
True-False Question

True-False Question

Instructions [Editor](#) ?

Indicate if the following statement is true or false:

Question: [Editor](#) ?

The number of elements in a basis is called the dimension of the vector space  $V$ .

True  False

Feedback [Editor](#) ?

This statement is true (see Corollary 1.4.)

True-False Question

Indicate if the following statement is true or false:

The number of elements in a basis is called the dimension of the vector space  $V$ .

True  False

Correct

This statement is true (see Corollary 1.4.)





# 4. Creation and editing of digital content



Interactive activities:  
Multi-choice

Multi-choice  
✕  
Question [Editor](#) ?

Let  $V$  be a finite-dimensional vector space over a field  $K$ . Then:

Hint [Editor](#) ?

Option [Editor](#) ?

any two bases of  $V$  might have different number of elements.

Correct Option ?

Add another option

Multi-choice

Let  $V$  be a finite-dimensional vector space over a field  $K$ . Then:

- any two bases of  $V$  might have different number of elements.
- the number of elements in a basis is called the dimension of the vector space  $V$ .
- the number of elements in a basis is called the rank of the vector space  $V$ .

Correct Option





# 4. Creation and editing of digital content





Interactive activities:  
Multi-select


Multi-select

Question: [Editor](#)  


Let  $V$  be a finite-dimensional vector space over a field  $K$ . Then:

Options   
Option [Editor](#) 


any two bases of  $V$  have the same number of elements.

Option [Editor](#) 

the number of elements in a basis is called the dimension of the vector space  $V$ .

Correct Option 

Add another option

 Multi-select

Let  $V$  be a finite-dimensional vector space over a field  $K$ . Then:

- any two bases of  $V$  have the same number of elements.  
Correct
- the number of elements in a basis is called the dimension of the vector space  $V$ .  
Correct
- the number of elements in a basis is called the rank of the vector space  $V$ .  
Correct

[Hide Feedback](#)



# 4. Creation and editing of digital content



Interactive activities:  
SCORM Quiz

SCORM Quiz

Question: [Editor](#)

Let  $V$  be a vector space over the field  $K$ , and let  $v_1, \dots, v_n$  be vectors in  $V$ . The vectors  $v_1, v_2, \dots, v_n$  are linearly independent if

Options [?](#)  
Option [?](#) [Editor](#)

whenever we have scalars  $c_1, c_2, \dots, c_n$  satisfying  $c_1v_1 + c_2v_2 + \dots + c_nv_n = 0$ , then necessarily  $c_1 = c_2 = \dots = 0$ .

Option [?](#) [Editor](#)

for every vector  $v \in V$ , we can find scalars  $c_1, c_2, \dots, c_n \in K$  such that  $v = c_1v_1 + c_2v_2 + \dots + c_nv_n$ . In this case, we write  $V = \text{span}\{v_1, v_2, \dots, v_n\}$ .

Correct Option [?](#)



Add another Option

Add another Question

Select pass rate: 50% [v](#)

SCORM Quiz

Let  $V$  be a vector space over the field  $K$ , and let  $v_1, \dots, v_n$  be vectors in  $V$ . The vectors  $v_1, v_2, \dots, v_n$  are linearly independent if

- whenever we have scalars  $c_1, c_2, \dots, c_n$  satisfying  $c_1v_1 + c_2v_2 + \dots + c_nv_n = 0$ , then necessarily  $c_1 = c_2 = \dots = 0$ .
- for every vector  $v \in V$ , we can find scalars  $c_1, c_2, \dots, c_n \in K$  such that  $v = c_1v_1 + c_2v_2 + \dots + c_nv_n$ . In this case, we write  $V = \text{span}\{v_1, v_2, \dots, v_n\}$ .
- if they form a basis for  $V$ .

Let  $V$  be a vector space over the field  $K$ , and let  $v_1, \dots, v_n$  be vectors in  $V$ . The vectors  $v_1, v_2, \dots, v_n$  are spanning if

- whenever we have scalars  $c_1, c_2, \dots, c_n$  satisfying  $c_1v_1 + c_2v_2 + \dots + c_nv_n = 0$ , then necessarily  $c_1 = c_2 = \dots = 0$ .
- for every vector  $v \in V$ , we can find scalars  $c_1, c_2, \dots, c_n \in K$  such that  $v = c_1v_1 + c_2v_2 + \dots + c_nv_n$ . In this case, we write  $V = \text{span}\{v_1, v_2, \dots, v_n\}$ .
- if they form a basis for  $V$ .

[SUBMIT ANSWERS](#)

# 4. Creation and editing of digital content



Interactive Activity:  
GeoGebra Activity



<https://www.geogebra.org/m/y6Zy2Wzw>

GeoGebra Activity Content [Select an icon](#)

Insert a GeoGebra activity from [www.geogebra.org](http://www.geogebra.org). It requires an Internet connection.

Instructions:

Edit Insert Format Table Tools

**B** *I* Paragraph 10pt Arial A A

Move the yellow points in order to change the dimensions of both vectors.

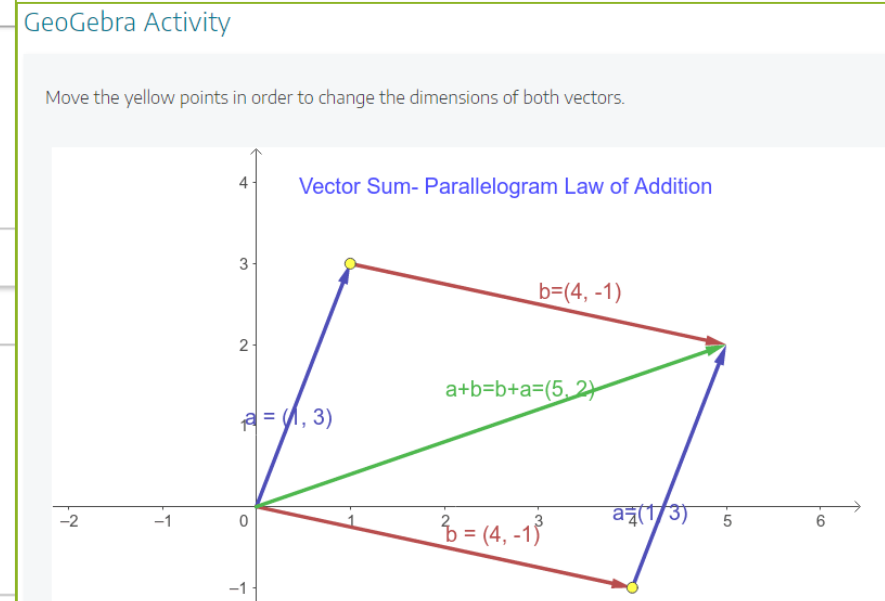


General Settings

URL:

Width:  px Height:  px

Example:



# 4. Creation and editing of digital content



Interactive Activity:  
Java Applet

PowerPoint Presentation



Drive

Insertar elemento

Solo el propietario y los colaboradores con quienes se haya compartido explícitamente tienen acceso

Pegar HTML para insertarlo en un sitio web:

```
<iframe src="https://drive.google.com/file/d/1-Z8GKo4umrkIp8M3O2I86oLyMaR4C6Sd/preview" width="640" height="480"></iframe>
```

Aceptar

Java Applet

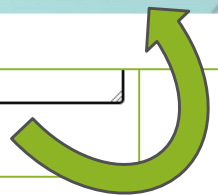
Applet Type: Other

Add files Upload

Applet Code:

```
<iframe src="https://drive.google.com/file/d/1-Z8GKo4umrkIp8M3O2I86oLyMaR4C6Sd/preview" width="640" height="480">
```

---Move To---



# 4. Creation and editing of digital content



Interactive Activity:  
Java Applet



YouTube video

Introduction to matrices

$$A = \begin{bmatrix} 3 & 0 \\ -5 & 2 \end{bmatrix}$$
$$B = \begin{bmatrix} 1 & -10 \\ 2 & 3 \\ 0 & 7 \\ -5 & 2 \\ 10 & \pi \end{bmatrix}$$

$a_{2,2} = 0$   
 $a_{1,3} = 2$

Insertar vídeo

```
<iframe width="560" height="315" src="https://www.youtube.com/embed/xyAuNHPsq-g" frameborder="0" allow="accelerometer; autoplay; clipboard-write; encrypted-media; gyroscope; picture-in-picture" allowfullscreen></iframe>
```

Empezar en 0:01

COPIAR

## 2. Matrices and determinants

Java Applet

Applet Type: Other

Add files Unload

Applet Code:

```
<iframe width="560" height="315" src="https://www.youtube.com/embed/xyAuNHPsq-g" frameborder="0" allow="accelerometer; autoplay; clipboard-write; encrypted-media; gyroscope; picture-in-picture" allowfullscreen></iframe>
```

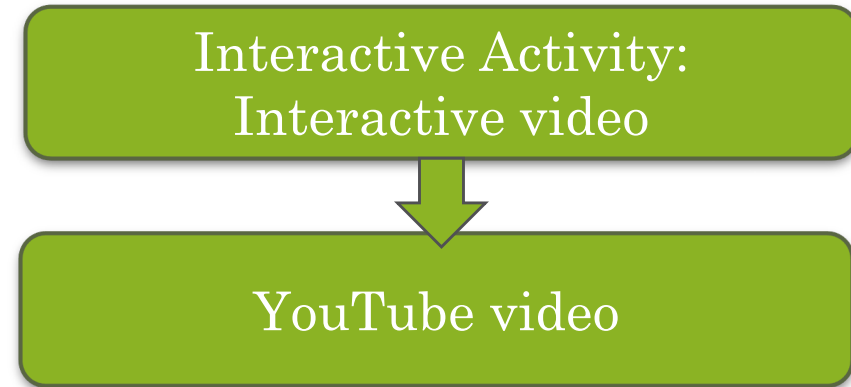
---Move To---

Introduction to matrices

$$A = \begin{bmatrix} 3 & 0 \\ -5 & 2 \end{bmatrix}$$
$$B = \begin{bmatrix} 1 & -10 \\ 2 & 3 \\ 0 & 7 \\ -5 & 2 \\ 10 & \pi \end{bmatrix}$$

$a_{2,2} = 0$   
 $a_{1,3} = 2$

# 4. Creation and editing of digital content



Title:

Type:  Local file  Youtube  Mediateca

URL:

Example: [https://www.youtube.com/watch?v=v\\_rGjOBtvhl](https://www.youtube.com/watch?v=v_rGjOBtvhl)

Show results

Open the editor and start adding interaction...

Your interactive video Interactive Video

Title (required):

Introduction:

This is a  matrix.

Introduction to matrices


$$\begin{bmatrix} 5 & 1 & 2 \\ 3 & 0 & -5 \end{bmatrix} = A$$

1:09 / 11:50

Results

# 4. Creation and editing of digital content




 <b>Other Contents</b>
Download source file
External Web Site
File Attachments
Image Gallery
Image Magnifier
Wiki Article




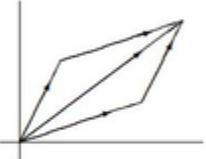
# 4. Creation and editing of digital content














Other contents:  
Image Gallery

Title 







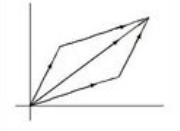
    



1.1. Definitions

 The parallelogram law 





# 4. Creation and editing of digital content



Other contents:  
Wiki Article

Wiki Article

Site ?  
English Wikipedia Article

Linear algebra ? Load

Article

Edit ▾ Insert ▾ Format ▾ Table ▾ Tools ▾

**B** *I* Paragraph 10pt

Emphasis  
Some emphasis ▾

---Move To---



Wiki Article

## Linear algebra

From Wikipedia, the free encyclopedia

[Jump to navigation](#) [Jump to search](#)

Linear algebra is the branch of [mathematics](#) concerning [linear equations](#) such as:

$$a_1x_1 + \dots + a_nx_n = b,$$

[linear maps](#) such as:








$$(x_1, \dots, x_n) \mapsto a_1x_1 + \dots + a_nx_n,$$

and their representations in [vector spaces](#) and through [matrices](#).<sup>[1][2][3]</sup>

# 4. Creation and editing of digital content



Other contents:  
External Web Site

URL:   
  
Frame Height:  
   
      



The screenshot shows the Wikipedia article for "Linear algebra". At the top right, it says "Not logged in" with links for "Talk", "Contributions", "Create account", and "Log in". Below this is a search bar with "Search Wikipedia" and a magnifying glass icon. The article title "Linear algebra" is prominently displayed, with "Article" and "Talk" tabs. Below the title, it says "From Wikipedia, the free encyclopedia". The main text states: "Linear algebra is the branch of mathematics concerning linear equations such as:" followed by the equation  $a_1x_1 + \dots + a_nx_n = b,$  and "linear maps such as:" followed by the equation  $(x_1, \dots, x_n) \mapsto a_1x_1 + \dots + a_nx_n,$ . To the right of the text is an image showing a 3D coordinate system with a blue line and two green planes. On the left side of the page, there is a sidebar with the Wikipedia logo and the text "WIKIPEDIA The Free Encyclopedia". Below this are links for "Main page", "Contents", "Current events", "Random article", "About Wikipedia", and "Contact us". At the bottom left, there are small icons for a printer and a close button.

# 4. Creation and editing of digital content



Other contents:  
File attachments

### File Attachment

Here you can attach arbitrary files to the package that will be included with the export

You can choose to display links or not below

**Title:**  
File Attachments

**Show description and link**  
Yes

**Instructions** ?

Edit | Insert | Format | Table | Tools

**B** *I* Paragraph 10pt Arial

In the following file you can find the contents of this unit.

P

G:\Proyecto TeComp\Curso Diciembre2020\cursos\_TeComp.pdf **Browse** **Upload** ?

### File Attachments

In the following file you can find the contents of this unit.

- [cursos\\_TeComp.pdf \(New Window\)](#)

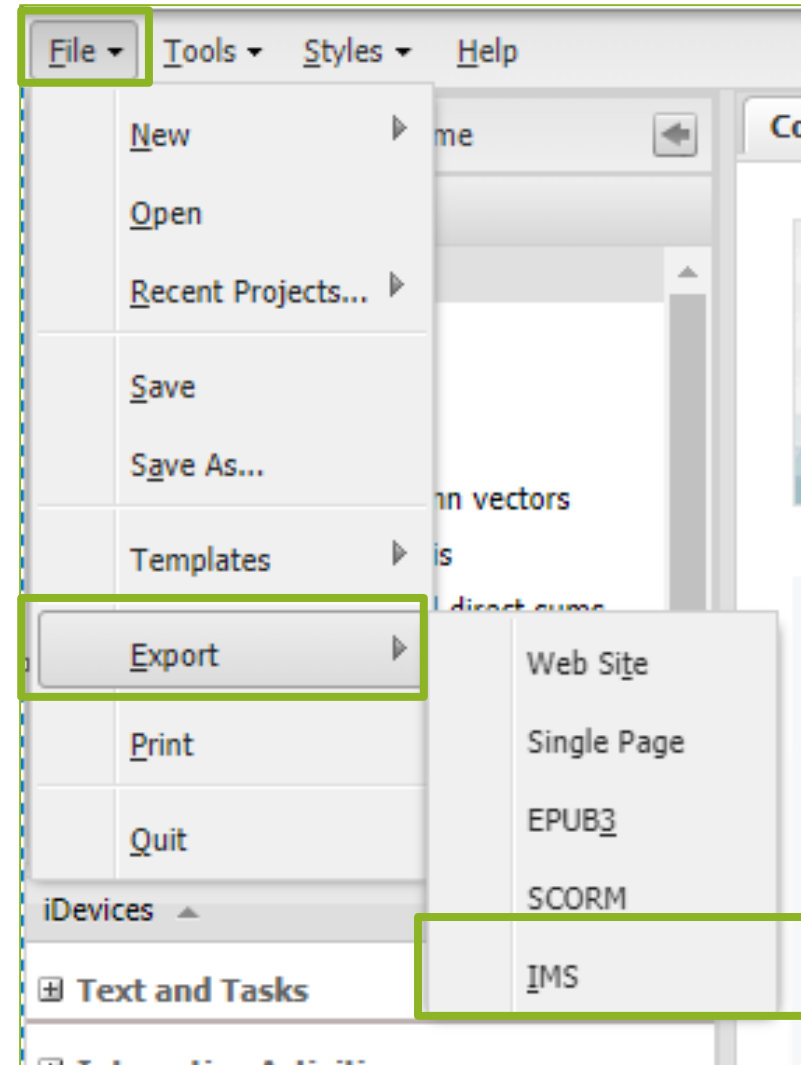
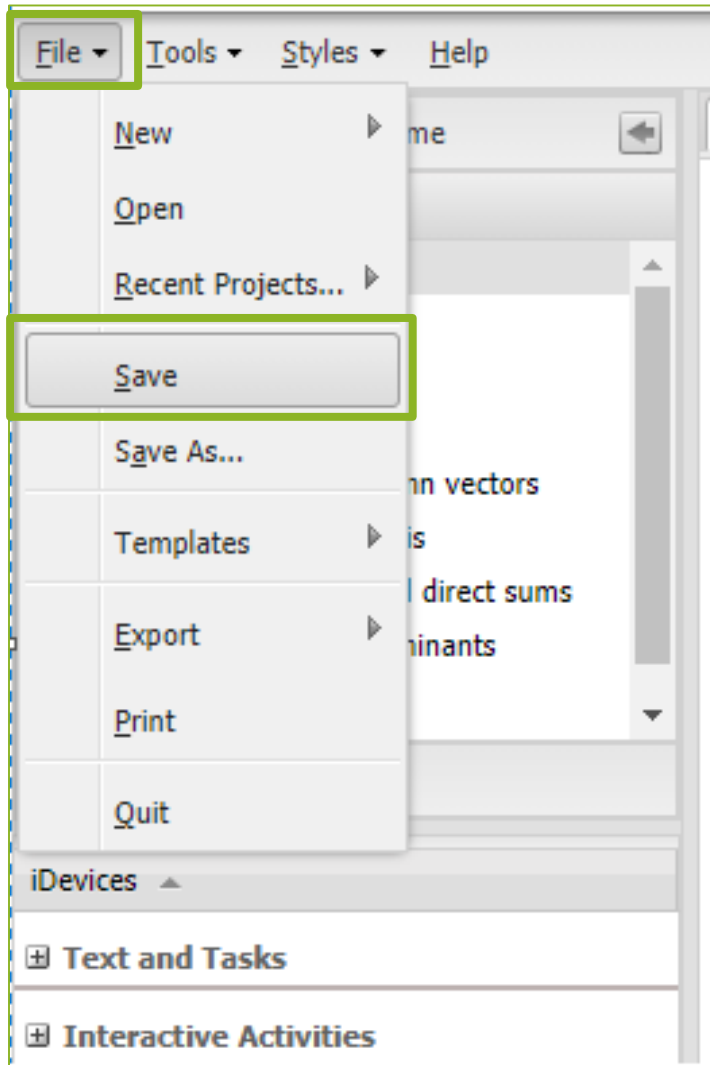
**Description**  
cursos\_TeComp.pdf  
File: cursos\_TeComp.pdf

**Add Another File Attachment**

---Move To---



# 5. Export content created with eXeLearning



# 6. Upload eXeLearning content to a course in Moodle



Agregar una actividad o recurso

RECURSOS

- Archivo
- Contenido Web
- Directorio
- Etiqueta
- Libro
- Paquete de contenido IMS
- URL

ACTIVIDADES

- Base de datos
- Blog
- Consulta
- Cuestionario

Seleccione una actividad o un recurso para ver la ayuda. Haga doble clic en el nombre de una actividad o recurso para añadirla de forma rápida

Agregar Cancelar

Paquete de archivos Seleccione un archivo... Tamaño máximo para archivos nuevos: 40MB

Example.zip

**eXeLearning as a tool for creating digital content**

 Example

TOC

- Linear Algebra
  - 1. Vector spaces
    - 1.1. Definitions
    - 1.2. Bases
    - 1.3. Row and column vectors
    - 1.4. Change of basis
    - 1.5. Subspaces and direct sums
  - 2. Matrices and determinants
    - 2.1. Matrix algebra
    - 2.2. Row and column operations

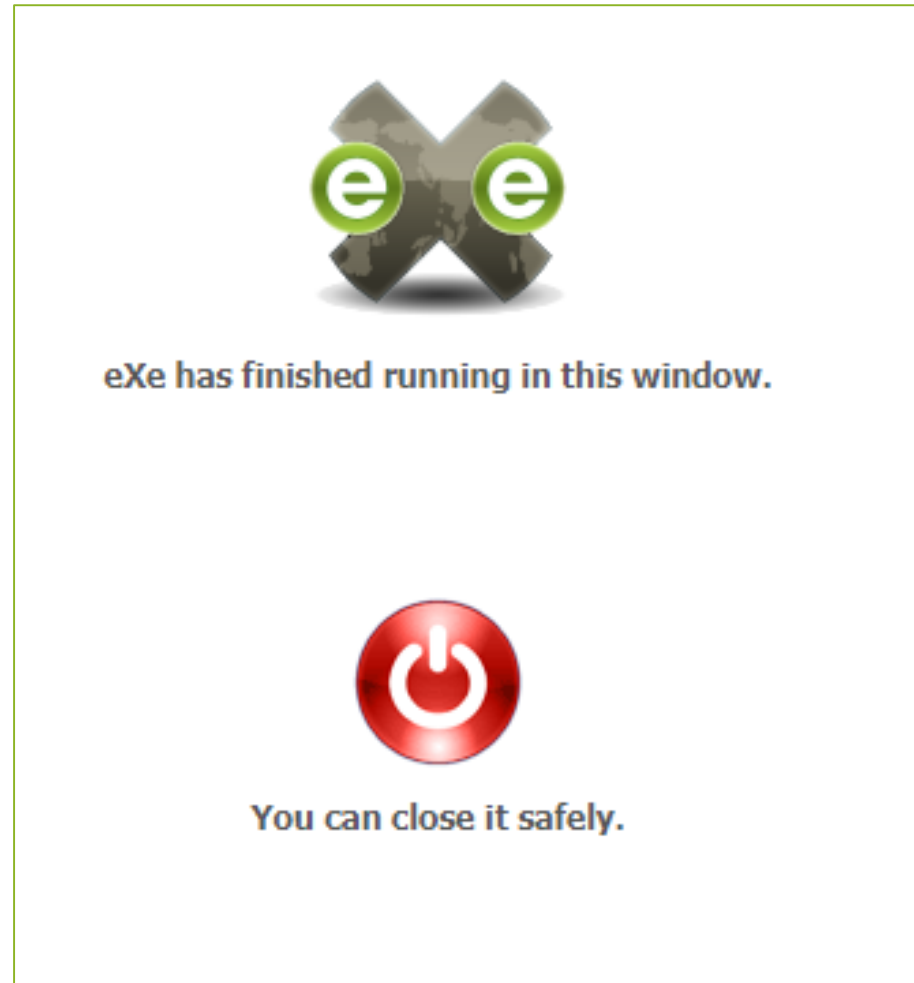
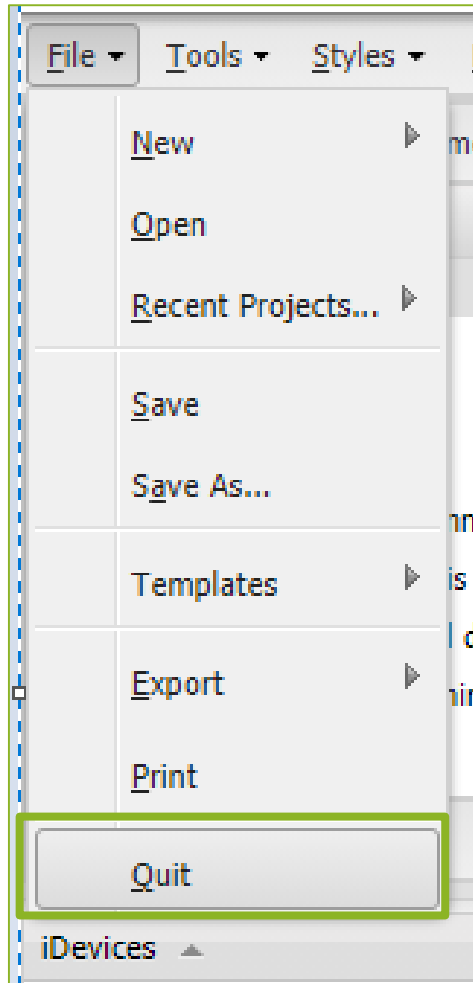
Linear Algebra

Objectives

- Solve systems of linear equations using multiple methods, including Gaussian elimination and matrix inversion.
- Carry out matrix operations, including inverses and determinants.
- Demonstrate understanding of the concepts of vector space and subspace.
- Demonstrate understanding of linear independence, span, and basis.
- Determine eigenvalues and eigenvectors and solve eigenvalue problems.
- Apply principles of matrix algebra to linear transformations.
- Demonstrate understanding of inner products and associated norms.

Preknowledge

# Attention!





# Module 2A. eXeLearning as a tool for creating digital content

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