

# User's Manual

CMZ2

Magic Worksheet Generator for Windows

*Mathematics: All topics*



[www.vaxasoftware.com](http://www.vaxasoftware.com)

Ref.: CMZ2

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## Introduction

CMZ2 is a Windows application for the automatic generation of Worksheets of problems, exercises and questions of Mathematics for educational purposes.

Please, read this manual carefully in order to learn all the capabilities of the application.

◆ **Note:**

Design, price and specifications are subject to changes without notice.

## Terms of use

In no event shall Vaxa Software be liable to anyone for direct, indirect, special, collateral, incidental, or consequential damages by the use or impossibility of use of this application, nor by the effects in the operation of other applications or the operating system.

Before the installation we recommended to make backup of your data and create a restoration point.

You will be able freely to evaluate the application shareware during the time that considers necessary. Passed this period of evaluation you would have or to register it or uninstall it.

In order to register the application, please see the option "REGISTER APPLICATION" in the help menu of the application.

After paying the registry rights you will receive by email the REGISTRATION KEY of the application. Once registered the application, it will be able to use the options that were disabled until that moment.

The REGISTRATION KEY is UNIQUE for EACH COMPUTER.

You cannot use the same REGISTRATION KEY for multiple computers.

You can freely distribute unaltered copies of the installation system of the application to other users.

You cannot decompile the application nor use no type of reverse engineer for its analysis or modification.

You cannot use part or the totality of the application to create a new application.

### **Conflicts of shared files:**

Vaxa Software assumes no liability for conflicts due to the incompatibility of shared files (\*.dll, \*.ocx and other files).

Vaxa Software applications use shared files (\*.dll, \*.ocx and other files).

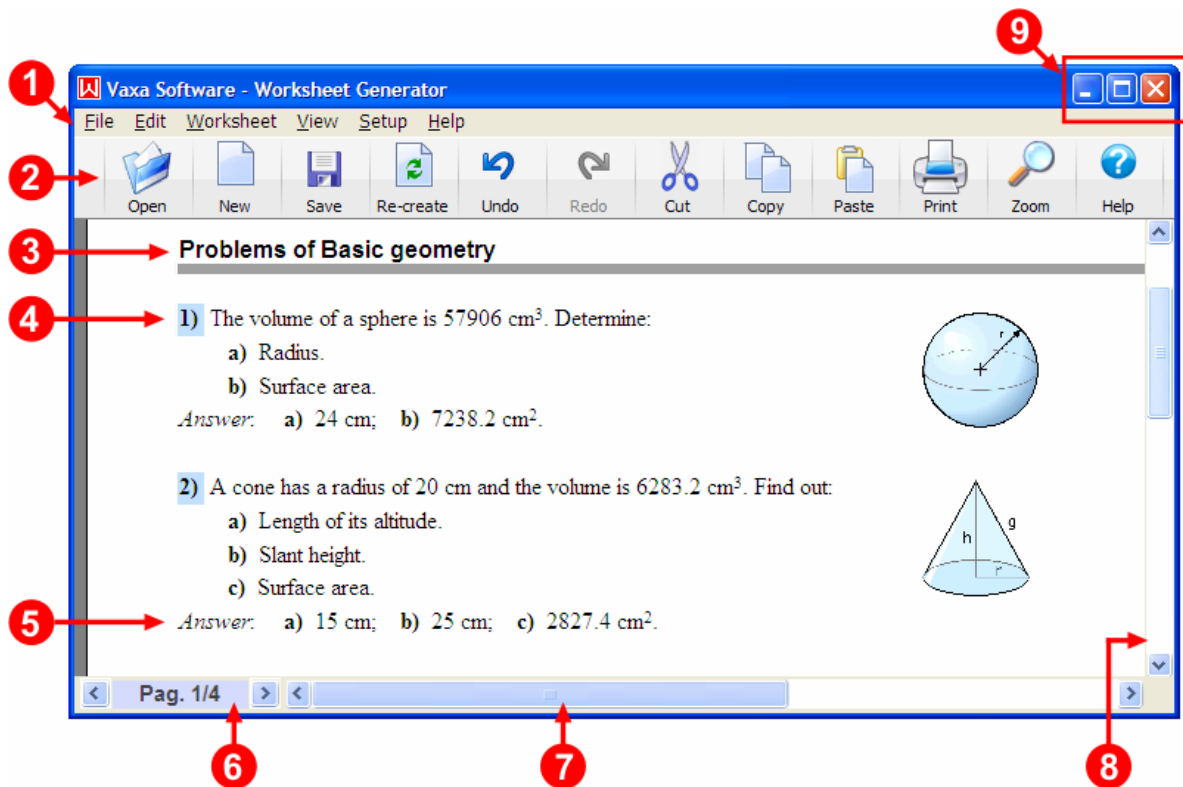
It is possible that the shared file exists and whether or not previously replaced by a different version during the installation of the VaxaSoftware application.

This can cause the VaxaSoftware application not work and/or a third party application that shares the same file does not.

Also the installation of a third party application can cause the application of VaxaSoftware or third party application does not work.

Vaxa Software will try to resolve these conflicts in a reasonable manner, despite its satisfactory resolution is not guaranteed.

## Main window



### (1) Menu bar

It contains the menus: *File*, *Edit*, *Worksheet*, *View*, *Setup* and *Help*.

#### ◆ Note:

If there is no worksheet then *Edit* and *Worksheet* menus are not visible.

### File menu

#### **New worksheet...** menu

Opens the *Wizard* window that will help us create a new worksheet.

#### **Open...** menu

Opens the *dialog* window to select and open a worksheet file (\*.col).

#### **Create custom worksheets for a group of students...** menu

Allows us to create custom worksheets for a group of students based on the current document. The list of students must be a text file with one name per line.

#### **Save** menu

Saves the current worksheet. If the worksheet is new or has been re-created, will be saved as a new file and we asked for a file name and a path to save it.

#### **Save as...** menu

Shows the *dialog* window to select a path and a filename (\*.col) to save the current worksheet.

**Print...** menu

Opens the *Print* window. In it we can select the printer destination and specify the pages we want to print and the number of copies.

**Print all worksheets from a folder...** menu

Allows us to print the worksheets from a folder.

**List of recent files** menu

Lists recent files opened or saved. To open a file will click on its name.

**Exit** menu

Closes the application. If the current worksheet was not saved us ask if we want to save before exiting.

**Edit** menu

**Undo** menu

Undoes the last action.

**Redo** menu

Returns to the state before the last *Undo*.

**Cut** menu

Copies the selected problem to the clipboard and then deletes it.

**Copy** menu

Copies the selected problem to the clipboard.

**Paste** menu

Inserts the problem that is on the clipboard into the worksheet.

**Delete** menu

Erases the selected problem.

**Move to the beginning** menu

Moves to the top the selected problem.

**Move to the end** menu

Moves to the end the selected problem.

**Move up** menu

Moves up one position the selected problem.

**Move down** menu

Moves down one position the selected problem.

**Re-create this problem** menu

Re-creates the selected problem.

The created problem will be of the same type but with other data and/or statement.

The new problem replaces the selected one.

**Insert another similar problem** menu

Creates another problem of the same type that the selected one.

The created problem will be of the same type but with other data and/or statement.

The new problem will be inserted in the position of the selected one.

## **Worksheet** menu

### **Re-create worksheet** menu

Creates another worksheet and replaces the current worksheet.

The new re-created worksheet will be of the same type of problems but with other data and/or statements.

#### ◆ **Note:**

This new re-created worksheet is assumed as a new file.

### **No answers** menu

Hides the answers of the problems.

### **Answers after each problem** menu

Puts the answers of each problem after the statement of each one.

### **Answers together at the end** menu

Puts the answers of the problems all together at the end of the worksheet.

### **Answers in a separate page** menu

Puts the answers of problems together in new pages at the end of the worksheet.

### **Properties** menu

Opens the *Properties of the Worksheet* window to change the general properties of the current worksheet.

➔ See *Description of parts: Properties of the Worksheet window* for further details.

## **View** menu

### **Editing buttons** menu

Shows / hides the editing buttons: *Undo, Redo, Cut, Copy* and *Paste*.

### **Zoom** menu

Allows us set the text size of the current worksheet.

The following settings are available: *Fit to page width, 50%, 75%, 100%, 150% and 200%*.

## **Setup** menu

### **Show Startup window** menu

Allows us to show/hide the startup options window when Worksheets Generator starts.

## **Help** menu

### **User's manual (PDF document)...** menu

Shows this manual.

### **Application registration** menu

Shows the registration form window to register the application.

### **Disabled functions in the unregistered version** menu

Shows the list of disabled functions when the application is not registered.

### **Home page (www.vaxasoftware.com)...** menu

Connects to VaxaSoftware home page.

An active Internet connection and a browser are required.

### **Make a donation...** menu

Connects to VaxaSoftware donations page.

An active Internet connection and a browser are required.

### **About...** menu

Shows the *Splash* window with the version and description of the application.

## (2) Buttons bar

**Open** button

→ See *File / Open* menu for further details.

**New** button

→ See *File / New worksheet* menu for further details.

**Save** button

→ See *File / Save* menu for further details.

**Re-create** button

This button can either re-creates a selected problem or the whole worksheet.

1) If nothing is selected the whole worksheet is re-created.

The new worksheet replaces the old one and is considered as a new file.

The new re-created worksheet has the same type of problems but with other data and/or statements.

2) If there is a selected problem a new problem is re-created.

This new problem replaces the old selected one. The new problem is similar type but with other data and/or statements.

**Undo** button

→ See *Edit / Undo* menu for further details.

**Redo** button

→ See *Edit / Redo* menu for further details.

**Cut** button

→ See *Edit / Cut* menu for further details.

**Copy** button

→ See *Edit / Copy* menu for further details.

**Paste** button

→ See *Edit / Paste* menu for further details.

**Print** button

→ See *File / Print* menu for further details.

**Zoom** button

→ See *View / Zoom* menu for further details.

**Help** button

→ See *Help* menu for further details.

## (3) Worksheet title

Shows us the worksheet title.

To change the title we access the properties of the worksheet clicking on the *Worksheet / Properties of the worksheet* menu.

→ See *Description of parts: Properties of the Worksheet window* for further details.

#### (4) Statement of the problem

Problem number and its statement.

→ We can select the problem clicking on the left side of the page with the main button of the mouse. Then we can edit it using the *Edit* menu options.

Also we can access the *Edit* menu options clicking the secondary button of the mouse when a problem is selected.

→ See *Edit* menu for further details.

We can change the style of the problems number (initial number, prefix, suffix and color).

To change the problem number properties we access the properties of the worksheet clicking on the *Worksheet / Properties of the worksheet* menu.

#### (5) Answer of the problem

Shows us the answer of the problem.

The answer of a problem can be hidden / shown and changed of place.

→ See *Worksheet* menu for further details.

#### (6) Page scroll bar

Shows us the number of the current page and the total pages of the worksheet.

We can press buttons on the left and right side of the page number to access to the previous or next page. Also we can press *Page Up* and *Page Down* cursor keys.

To access to the first page we can press the *Home* cursor key, to access to the end one we press the *End* cursor key.

##### ◆ *Note:*

The page numbers shown are ordinal numbers. If our pages are numbered and the first number isn't 1 then the page number that appears on the page does not match that shown in the bar.

##### *Example:*

If the first page of our worksheet is numbered from 15 to 18 the displayed numbers will be the following:

Page 15 is shown as **Pag. 1/4** .

Page 16 is shown as **Pag. 2/4** .

Page 17 is shown as **Pag. 3/4** .

Page 18 is shown as **Pag. 4/4** .

#### (7) Horizontal scroll bar

Allows us move the current page horizontally if that does not fit entirely in the window.

Also we can press *Left* ← and *Right* → cursor keys.

#### (8) Vertical scroll bar

Allows us move the current page vertically if that does not fit entirely in the window.

Also we can press *Up* ↑ and *Down* ↓ cursor keys.

## (9) Window control buttons

These are the classic buttons of the windows of MS-Windows ®.

**Minimize** button

Minimizes the application to an icon on the desktop.

**Maximize / Restore** button

Maximizes / restores the application's window size.

**Close** button

Closes the application. Also we can press Alt + F4 keys on our keyboard.

## Wizard window

The *Wizard* window allows us to select the subject, topics, types and amount of problems we want to create.

We have two ways to start the *Wizard* window:

- 1) Clicking on the *File / New worksheet* menu.
- 2) Clicking on the *New* button.

We can move through the *Wizard* window pressing the *Back* and *Next* buttons.  
To close the *Wizard* click on the *Cancel* button.

The *Wizard* has the following windows:

- *Start*
- *Select the subject*
- *Types of documents*
- *Select topics, types and amount of problems*
- *Problem numbers / Page numbers*
- *Position of the answers / Sorting method*
- *Worksheet title*

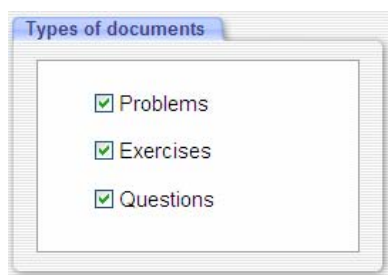
## Start window

Gives us a brief description of the *Wizard*.

## Select the subject window

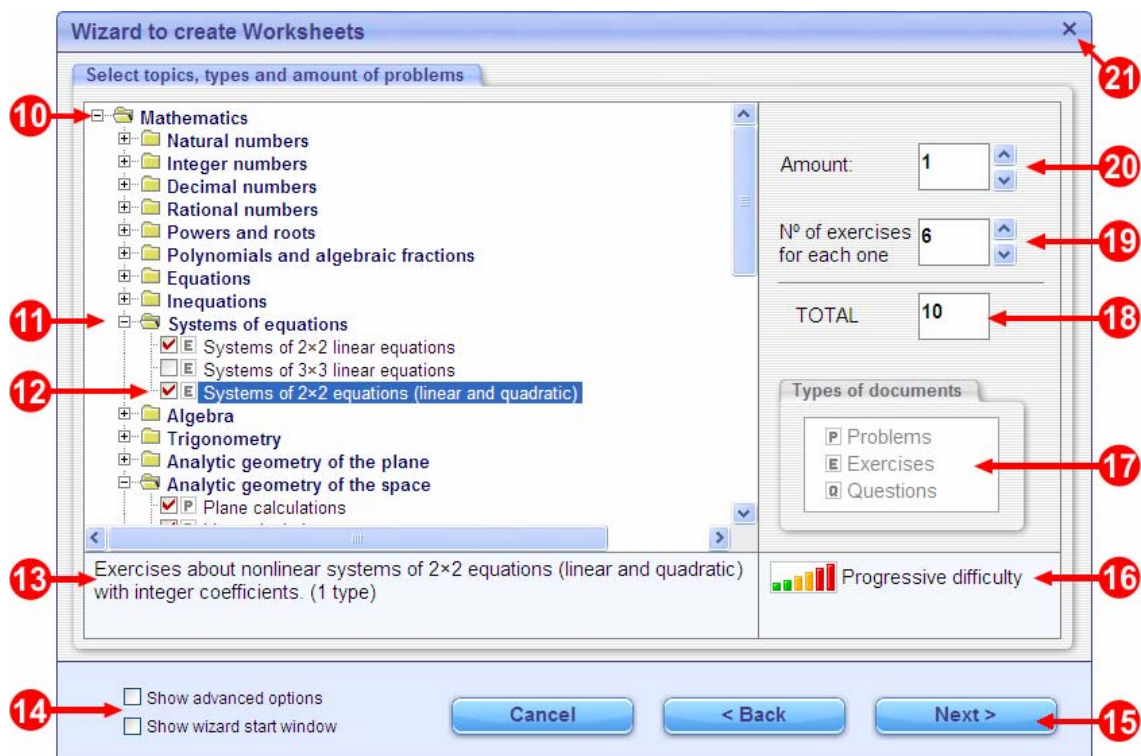
Allows us select the subject of the problems we want to create.

## Types of documents window



Lets us filter the types of documents: Problems, exercises or questions.

## Select topics, types and amount of problems window



### (10) Subject folder

Displays the name of the subject previously selected.

### (11) Topic folder

Displays the name of the topic.

### (12) Type of document mark: Problem, Exercise, Question

Shows the name and type of document according to the mark to the left of each name:  
[P] Problems, [E] Exercises, [Q] Questions.

### (13) Description of the current problem

Displays extended information about the problem, exercise or question selected.

### (14) View options

Allows us to show or hide windows of the wizard:

#### **Show advances options**

When this option is activated we can access the followings windows:

- *Types of documents.*
- *Problem numbers / Page numbers.*
- *Position of the answers / Sorting method.*

#### **Show wizard start window**

When this option is activated we can access the start window of the Wizard.

## (15) Buttons

**Cancel** button

Closes the *Wizard* window.

**Back** button


Shows the previous window of the *Wizard*.

**Next** button

Shows the next window of the *Wizard*.

## (16) *Difficulty level* mark

Indicates the difficulty level of the selected problem. The difficulty level may be:

*Progressive difficulty*: 

*Low difficulty*: ★★

*Medium difficulty*: ★★★

*High difficulty*: ★★★

### ◆ *Note*

The *Difficulty Progressive* function will not work if the worksheet is created as *unsorted*.

## (17) Legend about *Types of documents*

Shows the type of document according to the mark to the left of each:

[P] Problems, [E] Exercises, [Q] Questions.

## (18) *Total amount of documents (problems)*

Shows the total number of documents (problems, exercises and questions) selected.

### ◆ *Note*:

We cannot create more than 500 problems in a single worksheet.

If we need more than 500 problems, we have to distribute them in various worksheets with 500 or less problems in each one of them.

## (19) *Amount of elements in each exercise or question*

If the document type is exercise or question, we can specify the number of items we want to create within each.

The elements are sorted alphabetically from **a** to **z** (26 elements is the maximum amount).

The default amount is 6.

The minimum amount is 2.

The maximum amount is generally 26, but may be lower.

## (20) *Amount of problems (exercise or question)*

It allows us to specify the amount of problems we want to create of the selected type.

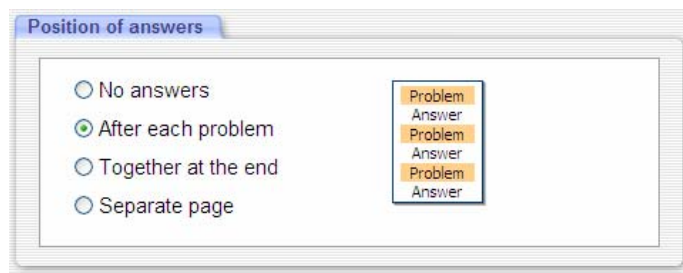
The default amount is 1.

The maximum amount is 99.

## (21) *Close* button

Closes the *Wizard* window.

## Position of answers / Sorting method window

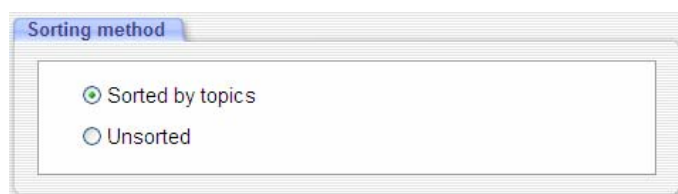


### Position of answers

Specifies four options for the position of the answers:

- *No answers*
- *Answers after each problem*
- *Answers together at the end*
- *Answers in a separate page*

→ See *Worksheet* menu for further details.



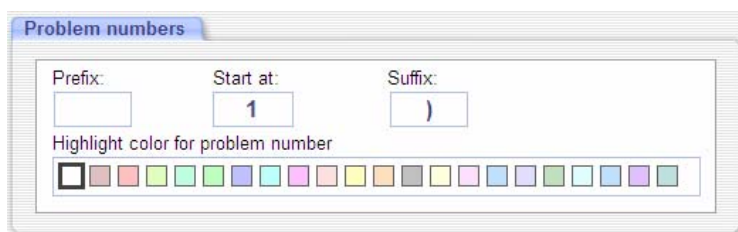
### Sorting method

Allows us sort the problems by topics or randomly (unsorted).

#### ◆ Note

The *Difficulty Progressive* function will not work if the worksheet is created as unsorted.

## Problem numbers / Page numbers window



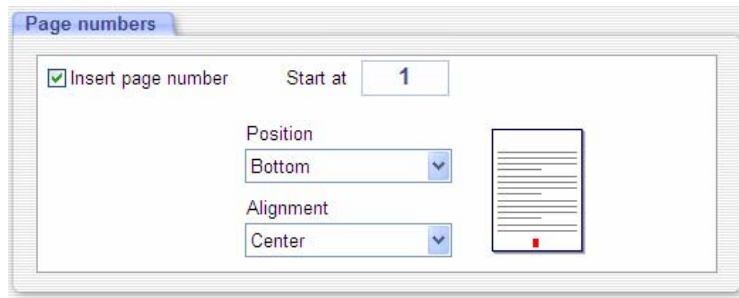
### Problem numbers

Sets the following four properties for the number of the problem:

- *Prefix*: Text that appears to the left of the number of the problem (default is empty).
- *Suffix*: Text that appears to the right of the number of the problem.  
(Default is a close parenthesis).
- *Start at*: Initial problem number (default is 1).
- *Highlight color*: Background color of the problem number text (default is white).

#### ◆ Note:

The initial number must be less than 2000.



### **Page numbers**

Sets the position of the page number and its initial value:

- *Insert page number option*: Click on this option to turn on/off page numbering.
- *Start at*: Specifies the initial number (default is 1).
- *Position*: Sets the placement of the number of page: **Up** or **down**.
- *Alignment*: Specifies the alignment of the number of page:

**Left**

**Center**

**Right**

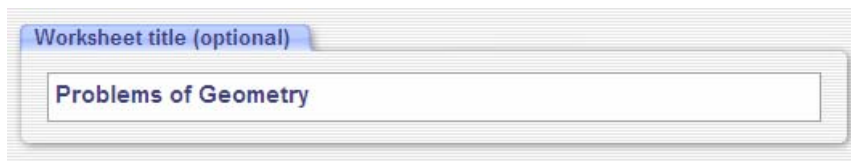
**Odd right-even left**

**Odd left-even right**

◆ **Note:**

The initial number must be less than 2000.

### **Worksheet title** window



Allows us specify the text that leads all the pages of the worksheet.

## Properties of the worksheet window

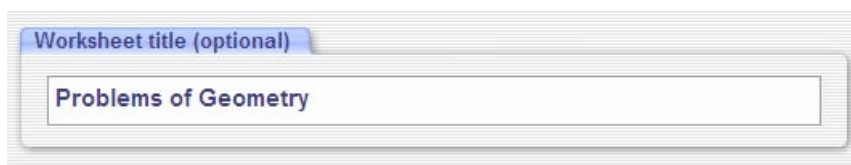
The *Properties of the worksheet* window allows us to modify the general properties of the current worksheet.

To access the *Properties of the worksheet* window click on the **Worksheet / Properties of the worksheet** menu.

This window has the following options:

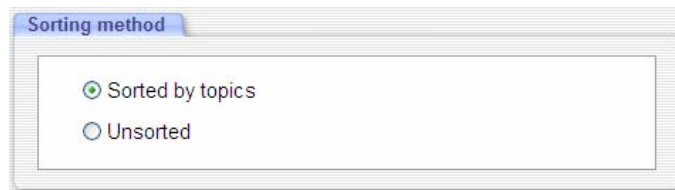
- **Title**
- **Sorting method**
- **Position of answers**
- **Problem numbers**
- **Page numbers**

### Worksheet title option



Allows us specify the text that leads all the pages of the worksheet.

### Sorting method option



Allows us sort the problems by topics or randomly (unsorted).

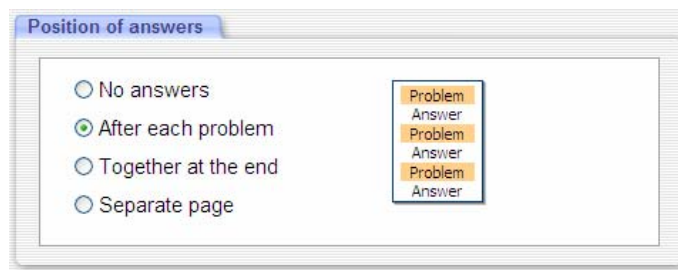
#### ◆ Note 1:

We cannot sort a worksheet that was created as unsorted.

#### ◆ Note 2:

The *Difficulty Progressive* function will not work if we mark the worksheet as unsorted.

### Position of answers option

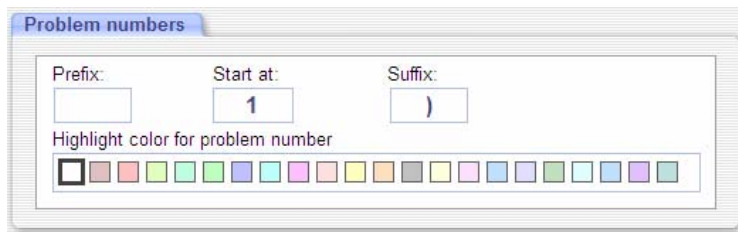


Specifies four options for the position of the answers:

- **No answers**
- **Answers after each problem**
- **Answers together at the end**
- **Answers in a separate page**

➔ See *Worksheet* menu for further details.

## Problem numbers option



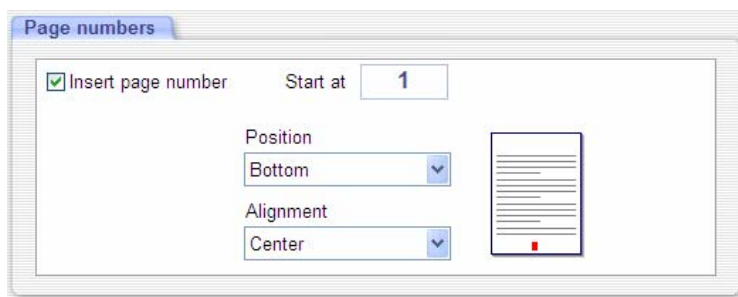
Sets the following four properties for the number of the problem:

- *Prefix*: Text that appears to the left of the number of the problem (default is empty).
- *Suffix*: Text that appears to the right of the number of the problem. (Default is a close parenthesis).
- *Start at*: Initial problem number (default is 1).
- *Highlight color*: Background color of the problem number text (default is white).

◆ **Note:**

The initial number must be less than 2000.

## Page numbers option



Sets the position of page number and its initial value:

- *Insert page number option*: Click on this option to turn on/off page numbering.
- *Start at*: Specifies the initial number (default is 1).
- *Position*: Sets the placement of the number of page: **Up** or **down**.
- *Alignment*: Specifies the alignment of the number of page:

**Left**

**Center**

**Right**

**Odd right-even left**

**Odd left-even right**

◆ **Note:**

The initial number must be less than 2000.

## Shortcut keys

List of the keyboard shortcuts that are available in the **Main** window.

|                    |  |
|--------------------|--|
| <b>Ctrl + N</b>    | New worksheet                                  |
| <b>Ctrl + O</b>    | Open   |
| <b>Ctrl + S</b>    | Save   |
| <b>Ctrl + P</b>    | Print  |
| <b>Ctrl + F4</b>   | Exit   |
| <b>Alt + F4</b>    | Exit   |
| <b>Ctrl + R</b>    | Re-create worksheet                            |
| <b>Ctrl + Z</b>    | Undo   |
| <b>Ctrl + Y</b>    | Redo   |
| <b>Ctrl + X</b>    | Cut  |
| <b>Ctrl + C</b>    | Copy   |
| <b>Ctrl + V</b>    | Paste  |
| <b>Del</b>         | Delete   |
| <b>Ctrl + E</b>    | Re-create this problem (the selected one)      |
| <b>Ctrl + I</b>    | Insert another similar problem                 |
| <b>F1</b>          | Help / User's Manual (PDF document...)         |
| <b>F2</b>          | Move up the selected problem                   |
| <b>F3</b>          | Move down the selected problem                 |
| <b>F4</b>          | Open <i>Properties of the worksheet</i> window |
| <b>Up arrow</b>    | Move down the current page                     |
| <b>Down arrow</b>  | Move up the current page                       |
| <b>Left arrow</b>  | Move right the current page                    |
| <b>Right arrow</b> | Move left the current page                     |
| <b>Page Up</b>     | Access to the previous page                    |
| <b>Page Down</b>   | Access to the next page                        |
| <b>Home</b>        | Access to the first page                       |
| <b>End</b>         | Access to the last page                        |

## List of subjects, topics and types of problems

### Mathematics

#### Natural numbers

- Addition and subtraction of natural numbers
- Multiplication of natural numbers
- Division of natural numbers
- Rounding natural numbers
- Expanding natural numbers in powers of 10
- Repeated multiplications as powers
- Powers as repeated multiplications
- Finding set of divisors of a number
- Prime factorization of a number
- Converting numbers between scientific and normal notation
- Lcm and gcm of natural numbers

#### Integer numbers

- Addition and subtraction of integer numbers
- Multiplication and division of integer numbers

#### Decimal numbers

- Addition and subtraction of decimal numbers
- Multiplication of decimal numbers
- Division of decimal numbers

#### Rational numbers

- Fraction of shaded shapes (I)
- Fraction of shaded shapes (II)
- Simplifying fractions
- Sorting fractions
- Addition and subtraction of fractions
- Addition, subtraction, multiplication and division with fractions
- Converting decimal numbers to fractions

#### Real numbers

- <R> Intervals I
- <R> Intervals II
- <R> Intervals III
- <R> Intervals IV
- Rounding real numbers
- Convert from normal notation into scientific notation
- Convert from scientific notation into normal notation
- Addition and subtraction in scientific notation
- Multiplication and division in scientific notation

#### Unit conversions

- Mass conversion
- Length conversion
- Area conversion I
- <R> Area conversion II: Square meter and hectare
- <R> Volume conversion I: (Cubic meter)
- <R> Volume conversion II (Litre)
- <R> Volume conversion III (Cubic meter and litre)

#### Angle calculations

- Adding angle measures
- Subtracting angle measures
- Multiplying angle measures
- Dividing angle measures
- Complementary and supplementary angle calculation
- Angle calculation in triangles and other shapes

## List of subjects, topics and types of problems (*continued*)

### **Powers and roots**

- Simplifying powers of natural numbers
- Simplifying powers of rational numbers
- Rationalization I: (square roots)
- Rationalization II: (with n-th roots)
- Addition and subtraction of square roots
- Simplifying n-th roots
- Calculation of square roots in your head
- Finding square roots using the algorithm

### **Percentages**

- Percentages: Direct calculations

### **Polynomials and algebraic fractions**

- Addition and subtraction of polynomials
- <R> Multiplication and power of binomials
- <R> Factoring polynomials
- <R> Division of polynomials
- <R> Division of polynomials involving parameters
- <R> Algebraic fractions I: Simplifying algebraic fractions
- <R> Algebraic fractions II: Simplifying algebraic fractions
- <R> Algebraic fractions III: Simplifying algebraic fractions

### **Equations**

- Linear equations with integer coefficients
- Linear equations with rational coefficients
- <R> Word problems involving a linear equation
- Incomplete quadratic equations
- Complete quadratic equations
- <R> Quadratic equations with constant in the denominator
- <R> Quadratic equations with x as denominator
- <R> Biquadratic equations
- <R> Equations involving roots
- <R> Exponential equations
- <R> Logarithmic equations
- <R> Trigonometric equations

### **Inequalities**

- Linear inequalities in 1 variable with integer coefficients
- Linear inequalities in 1 variable with rational coefficients
- <R> Inequalities in 2 variables
- <R> Systems of 2 linear Inequalities in 2 variables

### **Systems of linear equations**

- Systems of 2x2 linear equations
- <R> Systems of 3x3 linear equations

### **Systems of non-linear equations**

- <R> Systems of 2x2 equations (linear and quadratic)

### **Matrix algebra**

- Matricial equations: type  $AX+B=C$
- <R> Systems of 2x2 matricial linear equations
- <R> Determinant and inverse matrix with a parameter
- Discuss and solve of system of 3x3 linear equations (without parameter)
- <R> Discuss and solve system of 3x3 linear equations (with parameter)

## List of subjects, topics and types of problems (*continued*)

### Basic geometry

- Pythagorean theorem I
- <R> Pythagorean theorem II
- Similarity
- <R> Plane shapes I: straight line segments
- <R> Plane shapes II: straight line segments
- <R> Plane shapes III: curved line segments
- <R> Plane shapes IV: curved line segments
- <R> Spatial shapes I: plane surfaces
- <R> Spatial shapes II: plane surfaces
- <R> Spatial shapes III: curved surfaces
- <R> Spatial shapes IV: curved surfaces

### Trigonometry

- Trigonometric values from another one
- <R> Trigonometric values from two other known
- <R> Trigonometric identities
- <R> Trigonometric equations
- <R> Solving triangles
- <R> Solving plane shapes.

### Complex numbers

- Adding and subtracting complex numbers
- Multiplying and dividing complex numbers in cartesian form
- Cartesian-polar conversions
- Multiplying and dividing complex numbers in polar form
- <R> Powers of complex numbers
- <R> Root extraction of complex numbers
- <R> Calculation of a parameter

### Plane analytical geometry

- Vectors I
- <R> Vectors II
- <R> Lines I
- <R> Lines II
- <R> Conics I: Circle
- <R> Conics II: Ellipse
- <R> Conics III: Hyperbola
- <R> Conics IV: Parabola

### Space analytical geometry

- Vectors
- Plane calculations
- <R> Line calculations
- <R> Alignment, coplanarity and distance of points
- <R> Relative position of planes and lines (without parameter)
- <R> Relative position of planes and lines (with parameter)
- <R> Relative position of two lines (without parameters)
- <R> Relative position of two lines (with parameters)

### Limits

- Limits involving rational functions
- <R> Limits involving roots
- <R> Limits involving subtraction of roots
- <R> Limits of powers involving the number  $e$

## List of subjects, topics and types of problems (*continued*)

### Functions and derivatives

- Domain of a function I
- Domain of a function II
- <R> Inverse functions
- <R> Function composition I
- <R> Function composition II
- <R> Derivative of functions I: without using the Chain rule
- <R> Derivative of functions II: without using the Chain rule
- <R> Derivative of functions III: using the Chain rule
- <R> Derivative of functions IV: using the Chain rule
- <R> Derivative of functions V: using the Generalized power rule
- Tangent line to a curve at a point
- Normal line to a curve at a point
- <R> Finding polynomial functions involving derivatives
- <R> Asymptotes I: Vertical
- <R> Asymptotes II: Horizontal
- <R> Asymptotes III: Oblique
- <R> Asymptotes IV: Vertical, horizontal and oblique
- <R> Maxima and minima of a function
- <R> Monotonicity and extrema
- <R> Inflection points of a function
- <R> Concavity/convexity and inflection points
- <R> Continuity I: Piecewise functions (without parameters)
- <R> Continuity II: Piecewise functions (with 1 parameter)
- <R> Continuity III: Piecewise functions (with 2 parameters)
- <R> Derivability I: Without parameter
- <R> Derivability II: With parameters
- <R> Analyze function using the graph of its derivative (I)
- <R> Analyze function using the graph of its derivative (II)
- <R> Optimization

### Graphing functions

- Basic I: Linear
- Basic II: Quadratic
- <R> Basic III: Exponential (non base e)
- <R> Basic IV: Exponential (base e)
- <R> Basic V: Logarithmic
- <R> Basic VI: Simple rational
- <R> Basic VII: Square root
- <R> Advanced I: Cubic polynomial
- <R> Advanced II: Rational
- <R> Advanced III: Exponential
- <R> Advanced IV: Logarithmic

### Indefinite integrals

- Integration by direct method
- <R> Integration by substitution
- <R> Integration by parts I
- <R> Integration by parts II
- <R> Integration by parts III
- Integrals of rational functions I
- <R> Integrals of rational functions II

### Definite integrals

- <R> Area calculation involving one function
- <R> Area calculation involving two functions
- <R> Parameters calculation using definite integrals
- <R> Find function by integration of its first derivative
- <R> Find function by integration of its second derivative

## List of subjects, topics and types of problems (*concluded*)

### **Statistics and probability**

Single variable statistics for ungrouped data

<R> Single variable statistics for grouped data

<R> Two variable statistics: Linear regression analysis

<R> Normal distribution

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#### ◆ **Note:**

<R> Denotes that option is only available in the registered version.

## Specifications

|   |   |
|---|---|
| Description                                   | <i>CMZ2 Magic Worksheet Generator</i> is a Windows application to create, save, load and print worksheets of Mathematics for educational purposes.                |
| Maximum amount of problems in a worksheet     | 500   |
| Maximum amount of problems of the same type   | 99  |
| Maximum amount of pages in a worksheet        | 199   |
| Amount of elements in an exercise or question | Minimum 2<br>Maximum 26 (or less)   |
| First problem number                          | Between 1 and 1999  |
| First page number                             | Between 1 and 1999  |
| Positions of the problems answers             | 4 positions:<br>- No answers<br>- Answers after each problem<br>- Answers together at the end<br>- Answers in a separate page                                     |
| Position of the page number                   | 11 positions *:<br>- No page numbering (1)<br>- Up, down (2)<br>- Left, center, right, odd right-even left, odd left-even right (5)<br>(* $1 + 2 \times 5 = 11$ ) |
| Highlight colors for problem number           | 22 colors   |

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