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The Math Castle Administrator

Included with this version of Math Castle is a separate program called <u>The Math Castle Administrator</u>. This program is designed to provide the security needed to run Math Castle on networks or in schools or other multi-user environments where some measure of control is needed.

<u>The Math Castle Administrator</u> enables you to configure and setup Math Castle in the manner you as the Administrator deem best. It can also be used to prevent students from deleting their own records or other students records from the player database, and prevent the entry of frivolous names or more than one name per player. You can also prevent a student from playing games using another student's name, (and thereby putting scores in another player's file), by requiring password identification before a player can gain access.

Use the Math Castle Administrator to:

- 1. Enter or Edit problem sets of your own
- 2. Add players and assign passwords
- 3. Set play options such as:
 - a. sound device
 - b. advancement requirements
 - c. set for network usage
 - d. skip introduction
- 4. Perform file maintenance procedures such as:
 - a. delete all scores from the Hall of Fame
 - b. delete all player records in the Math Castle database
 - c. delete all players and records from database
 - d. delete all User Defined Problems sets
- 5. View with the option to print:
 - a. student scores found in the Math Castle Grade Book.
 - b. list of students and passwords

In order to run the administrator program, first exit Math Castle. Then click on the Administrator Icon found in the Math Castle Windows group. Access to the Math Castle Administrator is password protected. Once you have selected and entered a password, this password will be required in order to gain further access to the Administrator. If you lose your password you must re-install Math Castle from the original diskettes in order to gain access again.

To select your password, select the <u>Set Administrator's Password</u> option from under the <u>Security</u> menu from within the Math Castle Administrator program. On networks and other multiuser environments, it is recommended that you run this program immediately after installation of Math Castle is complete so that you can set the administrator's password BEFORE one of your students does.

Please consult the **Help** menu from within the administrator program for more information and instructions regarding the use of the <u>Math Castle Administrator</u> program.



To Order a Registered Version of Math Castle

Orders for <u>Math Castle</u> can be placed VIA Compuserve, Internet, Mail, Phone, or Fax. Be sure to include the version you want, (<u>Math Castle for Windows</u> - for this version), along with your name, address, city, state, country, zip code and phone number.

Math Castle for Windows will normally be shipped on two 3.5" 1.44mb diskettes unless otherwise requested. It is also available on 5.25" 1.2mb diskettes. Please specify the disk format that your system requires.

If you are a member of Compuserve, you can place your order through Compuserve by typing **GO SWREG**. From the **Shareware Registration Menu**, select the **Register Shareware** option, then follow the directions given on each screen. When you get to the screen where you **SELECT SEARCH CRITERA**, use the **Compuserve ID** number as your search critera. Math Castle's Compuserve ID number is: **5325**. The program cost and shipping fees will be automatically added to your Compuserve bill.

Payment can be made through Compuserve, (see above), or with Cash, Check, Money Order, VISA or MasterCard. We also ship C.O.D. to locations within the United States. <u>All Credit Card orders must include your Credit Card Number and Expiration Date</u>.

To place your order by phone call (509)465-0735.

To place your order by fax call (509)467-9481.

To order by mail please send your payment along with the information requested above to:

Attention: R. Jennings Northwest Software Engineers PO Box 489 Nine Mile Falls, WA 99026-0489

My Compuserve Mail address is: 71461,2602.

My Internet Address is: **71461.2602@compuserve.com**.

The cost to license Math Castle for use on a single computer is \$19.95 US Dollars plus \$5.00 Shipping and Handling. In addition, orders outside of the United States must add \$5.00, C.O.D. Orders \$5.00, Express Mail \$12.00, and Priority Mail \$4.00. Washington State residents add 8% Sales Tax.

All orders will be shipped First Class Mail within 5 business days of receiving your order, except for Express Mail orders which will be sent out within 24 hours from the time we receive your order.

To print out a Math Castle Order Form, first <u>click here</u> which will display the Order Form on your screen. Then select <u>Print Topic</u> under the **File Menu** to print it on your printer.

Note: To properly install Math Castle, an Original Math Castle diskette is required. Disk media is guaranteed for life and will be replaced free of charge by returning the original along with \$5.00 Shipping & Handling.

Additional Versions

In addition to the Windows version, there are two more IBM versions available making Math Castle capable of running on virtually any IBM PC or compatible from the earliest 8088 machines with only a floppy drive to the latest and most advanced hardware. In addition, there are three Apple versions enabling Math Castle to run on most Apple II and Macintosh Computers. Click Here for more information.

Schools, Site Licenses, and Networks: A Site License is required for Schools and other Multiple Station Users to use Math Castle on more than one computer per Original Copy of the program. The network version of Math Castle is required in order for all stations on a network to be able to access Math Castle at the same time. Please contact R. Jennings at Northwest Software Engineers for current pricing and/or for more information.

MATH CASTLE ORDER FORM
Ship To:
Name
Address
City, State, Zip
Country
Phone Number
Math Castle Pricing
Math Castle Registration \$19.95 Shipping & Handling \$5.00 Orders Outside United States add \$5.00 C.O.D. Charges add \$5.00 Express Mail add \$12.00 Priority Mail add \$4.00 Washington State orders add State Sales Tax @ 8% TOTAL \$US (Add Above)
Select Payment Option
Compuserve
Check/Money Order enclosed
Pay C.O.D. on Delivery
VISA or MasterCard Credit Card Number: Expiration Date:
Select Version and Disk Format
<u>Windows Ver. 2.0</u> 5.25" 1.2mb 3.5" 1.44mb
DOSVGA Ver. 3.1 5.25" 1.2mb 3.5" 1.44mb
DOS CGA/Monochrome Version 5.25"3.5"
Apple II 5.25" only
Mac Plus 3.5" only

Color Macintosh*

3.5" only. (See note below).

* Note: At the time of this release, the Color Macintosh version is not available, and a release date has not yet been set. Please call to check on availability before placing your order for this version.

Send Order Form to:

Northwest Software Engineers P.O. Box 489 Nine Mile Falls, WA 99026-0489

Phone: (509)465-0735 Fax: (509)467-9481

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Math Castle Version Descriptions

Math Castle For the IBM PC Family of Computers.

There are three versions available making Math Castle capable of running on virtually any IBM PC or compatible from the earliest 8088 machines with only a floppy drive to the latest and most advanced hardware. Use the following version descriptions to select the version that is most suitable for your particular needs:

The Windows Version (2.0) supports VGA high-resolution graphics and Sound Blaster digitized sound. Other features include context-sensitive on-line help, and student record keeping. The high quality graphics, music, digitized sound, and other advanced features of this version make it a perfect choice for those with systems that are equipped with Windows. This version requires a hard drive, Microsoft Windows, and a mouse. A sound card is recommended but not required. (Available on two 3.5" 1.44mb, or 5.25" 1.2mb diskettes).

The Dos Version (3.1) will run on any monitor type. For systems with a VGA display and adapter card it supports the same high-resolution graphics as the Windows version. Sound is produced on the PC speaker. This version will run on systems that have 1.2MB (or more) of disk space on either a floppy or a hard drive. To run in the VGA graphics mode, you need 640K of RAM. To run in graphics modes other than VGA requires only 512K. (Available on 3.5" 1.44mb or 5.25" 1.2mb diskettes).

___ The DOS Version (1.6) is recommended for systems that are limited in memory or disk space. It supports all display types including Monochrome, CGA, EGA, and VGA, and can be ran from a floppy disk. While this version does not support high-resolution VGA graphics, it will run on virtually any PC. So if compatibility, speed, or hardward limitations is the issue, this is the version for you. (Available on 3.5" and 5.25" diskettes).

Math Castle For the Apple II

The Apple II version is programmed to run on all Apple 2's and compatibles. It requires the standard 64k memory and one floppy drive. It plays in the same basic way of the other versions except that some functions may take longer due to the hardware limitations. (Available on 5.25" diskettes only).

Math Castle For the Macintosh

There are two Macintosh versions of Math Castle available making Math Castle where it will run on almost all Macs.

___The Mac Plus version uses hi-resolution graphics and digitized sound. Answers can be input from the keyboard or with a mouse. Requires 1mb of RAM. (Available on 3.5" diskettes).

- ___* The Color Mac version uses full color hi-resolution graphics and digitized sound. The high quality graphics, music, digitized sound, and other advanced features of this version make it a perfect choice for Color Mac users. (Available on 3.5" diskettes).
- * Note: At the time of this release, the color Macintosh version is not available, and a release date has not yet been set. Please call to check on availability before placing your order.



Technical Support

In case you experience difficulties in the installation or operation of Math Castle or the Math Castle Administrator program, product support is provided through:

Northwest Software Engineers P.O. Box 489 Nine Mile Falls, WA 99026-0489

(509)465-0735 Voice (509)467-9481 Fax

Compuserve Address: 71461,2602

Internet Address: 71461.2602@compuserve.com

Before contacting product support please read the following:

Sound Card Difficulties

Windows requires that one or more **Device Drivers** be installed in order to enable your sound card to be able to work under Windows. Math Castle requires device driver(s) that support WAV and GENERAL MIDI sound files. Please refer to the documentation that came with Windows and your Sound Card for instructions on how to install these drivers.

Math Castle has digitized sound effects and high quality music. If either of these components are not functioning, then you will need to check for proper driver installation.

If you need further assistance to get your sound to work properly, please contact product support that is provided by the manufacturer of your sound card, or Microsoft's product support for assistance in setting up your sound card to work with Windows.

Other Difficulties

Please consult Math Castle Help BEFORE calling for product support services.

A problem set is a group of problems that are given during any one game. If the maximum number of problems setting is less than the number of problems in the problem set, then problems are selected randomly from this set.

Help On Using Help
The Help On Help Help Menu option provides detailed instructions on how to use help.

Help IndexUse the help index to locate information and topics of interest. Select item by clicking on the underlined title or phrase.



Entering Your Name

Use this option to enter your name or to select your name from the player list. Once a new name has been entered it is added to the list of names so that next time it can selected from this list.

The name of the current player is always shown in the information box located in the upper right portion of the Math Castle screen.

Note: Addition of new names from within Math Castle can be disabled by checking the appropriate box from within the **Math Castle Administrator** program. When this state exists, names can be added from the **Math Castle Administrator** program only requiring players to select their names from a list of names previously entered by the administrator. For more information see the help topic for the <u>Math Castle Administrator</u> program.



Review Players Scores

Each time a game is played a record is made of it. This record contains the following information about each game the player has played:

Date of game Level Function Number of Problems in Set Score as percentage right Speed as elapsed time in seconds

Parents, teachers, and students can observe progress by looking at these records.

Note: All percentages used in Math Castle are calculated using the total number of problems in the problem set rather than the number of problems that are actually given. If a player does not complete all the problems in any given problem set, the problems that they do not get to are counted as wrong.



Play Music File

This option is provided for music lovers so that they can hear the major songs used in Math Castle without having to play the game.



Displaying Highest Scores

Use this option to display and print the **Highest Scores** that are currently listed in the "Hall of Fame".



Enabling Mouse Answers

When this option is set to "On", a row of buttons numbered from 0 to 9 will appear near the bottom of the screen. By clicking on the appropriate button(s) you can enter the answers. The default setting is "On".



Extended Levels

When **Extended Levels** is set to "On" then levels 13 to 40 become selectable. This is for those who really want a math challenge. When **Extended Levels** is set to "off" then only levels 1 to 12 are selectable. The default setting is "Off".



Castle Battle Action

Math Castle has two modes of operation. One is the Regular Play Mode which uses the "Castle Battle Action" arena, and the other is the Learning Mode which uses the <u>"Weapons Training Center"</u> as its arena of play.

The **Castle Battle Action** arena provides fast high pressure video game excitement that is designed to teach the basic math facts quickly and accurately, and at the same time capturing your attention with the fun filled video game excitement.

For more information see Weapons Training Center.



Select Function Menu

You may select the function, i.e., "Addition", "Subtraction", "Multiplication", "Division", and "All of Above" from the Function Menu, or select a problem set that you have entered using the <u>User Defined Problem Set Editor</u>.



Auto Advancement

When a player completes a game with an accuracy rating that is equal to or greater than the preset advancement requirement, then Math Castle automatically advances them to the next level. You may override this preset advancement requirement and set it to as low as 60% and as high as 100% through the <u>Math Castle Administrator</u> program. The default setting is 80%.

Math Castle starts all players out at level 1 addition. It will then advance the player until level 10 is reached, at which time Math Castle will advance to the next function and reset the level back to one. Functions are given in the following order: Addition, subtraction, multiplication, division, and All of Above.

In addition to advancing the levels and functions, Math Castle also adjusts the time allowed to answer the problems based on the score as a percentage of the problems right. If a score of less than 60% is made, then Math Castle increases the delay time by one step. Conversely, when a score that is equal to or greater than 80% is made, then Math Castle automatically decreases the delay time by one step. (See <u>delay</u> for more information).

Math Castle remembers where you are when you quit playing and automatically starts you out in the same place the next time you play.



Selecting a Sound Device

Math Castle is programmed to look for the presence of a sound card and automatically uses it if found. If no sound card is found, then Math Castle uses the PC Speaker as its next choice.

You may override the program's selection by selecting the sound device of your choice using <u>Select Sound Device</u> under the **Settings** drop-down menu.

Note: The **Auto Detect** selection will work properly only if your sound device has been specified in the AUTOEXEC.BAT file with the "SET SOUND=" command.



The Math Castle Game Menu

Use the following controls to start, stop, pause and exit Math Castle.

<u>Action</u>	Game Menu Item	Hot Key
To start game	e Start	Enter or Ctrl + S
To stop game	Stop	Esc or Ctrl + T
To pause gam	ne Pause	Ctrl + P
To exit game	Exit	Esc or Ctrl + X

Math Castle can also be started by pressing the **Enter** key. When instructing young children just tell them to press **Enter** for the easiest possible way to start Math Castle. Using this method to start Math Castle along with the autoadvancement feature built into Math Castle allows a student to get a complete math course by pressing enter.



Math Castle Acknowledgments

Math Castle for Windows was written and produced by Ron Jennings.			
Artwork by Linda Brancht.			
Math Castle DII code was written by Bob McCurdy.			



Weapons Training Center

The "Weapons Training Center" is one of the two arenas of play. In this arena, the player shoots down target drones by answering problems correctly. This arena is also used to review problems missed during a game.

This Arena offers a low-pressure environment setting that is useful in teaching students who do not learn as well in the more competitive video-arcade game format.

For more information see <u>Battle Battle Action</u> arena.



Math Castle Notices

Included with this version of Math Castle is the <u>Math Castle Administrator</u> program. This program is designed to provide the security needed to run Math Castle on networks or in other mulituser environments where some measure of control is needed. Use the <u>Math Castle Administrator</u> to perform file maintenance procedures, set play options, enter names and passwords, enter your own problem sets, and view or print the Math Castle Grade Book. Click <u>here</u> for a more detailed description .

Schools, Site Licenses, and Networks: A Site License is required for Schools and other Multiple Station Users to use Math Castle on more than one computer per Original Copy of the program. The network version of Math Castle is required in order for all stations on a network to be able to access Math Castle at the same time. Please contact R. Jennings at Northwest Software Engineers for current pricing and/or for more information.



Publisher Information

Math Castle is Published By:

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The Math Caste Story

CHRONICLES OF GIVEN - Vol. 7.6

And it came to pass that when King Mathus heard these things, that he called together all of his people, and as he told the people of Given about the grave threat posed by King Og of the Dark Lands, and of his plans to spread the thick darkness from the Land Down Under over all of the Land of Given, that the people stood in great fear and they mourned because of what they heard.

According to the Laws of the Land of Given, each person is given equal say as to what should be done, so soon the townsfolk begin discussing what each thought they should do. Some people said they should do this, and others that. Some folks thought that they should share their Land with King Og and his people, but then it was pointed out that this would never work because how could they live in the thick darkness that Og was planning to bring. No one would be able to see. Still others felt that they should move far away and make a new place for themselves to live, for the people of the Land of Given believed that no one owned the land, but it was the heritage of all peoples, and if King Og and his people want their Land, that they should find another place where they could live in peace, and let them have it.

While the above may make it appear that the people of Given may have been cowards by not fighting for what many would say was rightfully theirs, they just didn't think that way. No one had ever used violence or any other negative means to control others. It was thought if someone wanted what you possessed, that it was more blessed to give than to receive, and you simply gave it to them. This rarely happened because the Land of Given is a rich land where there is plenty. If someone did happen to have bad fortune and was in need, the people of Given gave so generously to them that often they had more than before their bad fortune.

The idea that they should find another place where they could live in peace was gaining momentum when someone asked the question as to where they could move to beings how that King Og not only wanted to cover the Land of Given with the thick darkness, but also to use this darkness to cover the sun so that it would no longer shine on their world. What about all the plants that need the rays of the sun to grow and all the creatures that live in the sun? What would happen to them?

The thought of abandoning the other creatures of Given to such a horrible fate was unthinkable to the people of the Land of Given, for as long as anyone could remember, the other creatures had always been their friends, and the people of Given helped and cared for them like one of their own. To them, abandoning their homes was something they might consider doing, but to abandon the other creatures of Given who depended upon them for help to such a fate was something they simply could not do.

Actually, King Og wasn't such a bad guy, for you see he, along with his people, looked at things entirely different than perhaps you and I, or the people of the Land of Given for that matter.

To fill you in on a little history, the Dark Lands, or the Land Down Under as it is also called, is located in caves and passageways that lie underneath the surface of Given. The light in that land comes solely from certain light emitting fungi that grow on the surface of the caves and passages. To people from the surface, even these places would appear dark, but to underworlders the light produced by these fungi is just right. Neither underworlders nor

surface dwellers knew that the other kingdom existed - until one day...

While there is a lot more to the story than appears here, let me fill you in on a few of the most important details.

King Og sees the stars for the first time

When King Og was first informed of a huge cavern that one of his scouting parties had found, he couldn't wait to see it. As he exited the cave entrance into this huge gigantic cavern, he noticed many bright lights that seemed to come from the top of the cavern. They were horribly bright so that it made it hard to see - like when you are on a sunny beach on a bright day without your sun glasses and you have to squint to see. As Og explored this "cavern" he was thrilled. He found King Mathus's castle and saw all the wonderful houses and lands of the Land of Given and he thought to himself about how wonderful it would be if he could live in such a castle himself, and if his people could live in such a wonderful place - And such a variety of creatures to be found.

King Og sees the sun for the first time:

Then the most horrifying thing happened that Og could ever imagine. Suddenly a huge ball of light appeared at the far side of the cavern. The light was so brilliant that all Og and his company of men could do was to cover their eyes and run for the cover and the safety of their beloved caves. Og was nearly blinded by this extraordinary light. They had to lead him around by the hand for 40 days before he finally could see again.

After this Og could not get his mind off of this strange new cavern, for one thing kept tugging at his heart: He felt a real and genuine concern for the people and creatures that lived there. What a terrible life they must live with that horrible bright light being there to continually torture them. So he decided to "save" that land.

This was his plan: First he would build a huge ship and then fill it with the thick darkness found at the planet's core. Then he would use this ship to spread this thick blackness over all this cavern so that the brightness would no longer be able to penetrate it. What a hero he would be to the people in that new cavern. Undoubtedly they would want him to be their new king and to live in that splendid castle he saw.

The People of Given make a plan:

So the people of the Land of Given found themselves faced with a great dilemma: That of needing to stop King Og from bringing the great darkness upon the world and at the same time do nothing to harm King Og or his people. How could they stop King Og without using force against him? (Which the people of the Land of Given would never do).

Note: To the casual observer, the Land of Given appears to be a rather primitive culture with a people who live plain and simple lives, but as you look more diligently into the matter, you find that they are really quite advanced, in fact in many areas they are much more advanced than we are. The people of Given simply did not desire anything but the plain and simple things required to live peaceful lives. So nobody was surprised when the Minister of Science approached King Mathus with a proposal that would solve their problem.

"There is no need to worry my friends for I have a plan that should solve our problem. I think we should create a device that will move things and people to remote locations without causing them any harm; we could call it... a... ah... transporter. By using this transporter we can simply whisk King Og, or any aggressor for that matter, far away to another place so that life on this planet, as we know it, can survive.

"We can either send them back to the Land Down Under or perhaps we can scan the other planets to find a suitable habitant for them there. I'm sure we can find a place that they will really like if we try.

"We will also need to develop a super energy beam weapon so that we can vaporize any alien ships before they fall to the surface of the planet and cause harm. We can scan each ship before firing upon it to see if anyone is aboard, and if so, we will beam them out of there before we destroy their ship."

This saying pleased the King and the people of Given so it was written into law and signed by King Mathus.

Epilogue

This transporter technology that was subsequently developed was later shared with the early representatives from the planet Earth as a gift from the people of Given. While the people of Given did not want to join the newly formed federation that the people of Earth were organizing, they were glad to share this technology with their new friends. This device later played a vital role in the expansion of the Earth based federation.

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How Math Castle Calculates Your Score

Each time that you answer a problem correctly, Math Castle adds points to your score. When you miss a problem, this same amount is deducted from the score, and 400 points are deducted from the available power.

The points added or deducted from the score depend on the level of difficulty of the problem. Whenever you answer a problem correctly, an alien space ship is shot down, and 50 points are added to the shield power for each digit of the answer.

After you have completed all the problems in the set, you will receive a bonus based upon the shield energy that remains, and the <u>delay</u> that was in effect. Bonus points are added to the score as per the following:

Delay	Bonus as % of Shield Power	
0	100%	
1	80%	
2	60%	
4	40%	
8	20%	

For maximum possible scores on any level, set <u>Delay</u> to zero, <u>multilevel</u> to "On", <u>Maximum Number of Problems</u> to 640, and Function to "All of Above".

If you obtain one of the ten highest scores on any level, then you get to enter your name into the Hall of Fame. If you tie a highest score already in the Hall of Fame you win. In Math Castle the challenger wins all ties. The last player always wins the right to the Hall of Fame if his score is equal to or higher than any of the 10 highest previous scores recorded there.

All scores and grade percentages are based upon the lesser of the total number of problems in the <u>problem set</u>, or the <u>maximum number of problems</u> setting.

If a player does not complete all of the problems in a <u>problem set</u>, the problems that were not given are counted as incorrect.

See Delay for more information.



OverView

The setting is a medieval castle and the student is the ruler who defends this castle by answering math problems. Math Castle teaches basic math facts using a fun-filled video-arcade game format. The colorful graphics, animation, and digitized sound make Math Castle interesting and fun to play. The problems can be input by the user or selected from one of 160 built-in sets. Features on-line context sensitive help.

Play commences with a warning sound and a message that appears on the screen informing the player that long-range sensors have detected a large number of enemy space craft approaching the castle. Then the first problem is displayed.

As soon as the first problem is displayed, a space ship will appear. This ship will wait approximately one second plus the current <u>Delay</u> setting at which time it will commence firing upon the castle.

It is important for the player to realize that it is OK to have their castle hit. The shield energy plus energy added for right answers is sufficient for them to win if they know the answers.

You can sustain up to 5 wrong answers, and one hit on your shield for each digit of the answer, and still win. Math Castle is designed to be winable 100% of the time if the player really knows the answers.

If the problem is answered correctly, then this hostile ship is shot down and play continues on to the next problem. If the problem is answered incorrectly, 400 points are deducted from the score, the correct answer is then displayed, the problem is erased from the screen, and after approximately a one second pause it is redisplayed. The player has to remember the answer for only one second to get it right the second time.

This process will repeat if the player continues to enter incorrect answers until either all the Shield Energy is gone, or the correct answer is entered. This instant review imprints the problem and the answer on the players mind.

When a problem is answered incorrectly, it is added to a list. After play is complete, the player is then shown this list of the problems missed along with the answers for them to study. After they have studied these problems for as long as desired, then they are sent to the <u>Weapons Training Center</u> to review them.

This repeated review of the problems that the player has difficulty with results in mastery of new problems in the shortest possible time.

Math Castle comes with an imaginative <u>story</u> line, that explains how that <u>in Math Castle</u>, <u>no one gets hurt</u>.



Review of Problems Missed

When Forced Review is set to "On" then Math Castle remembers the problems you miss. After you have completed playing the game, then you will be sent to the $\underline{\text{Weapons Training }}$ $\underline{\text{Center}}$ to review these problems.

See <u>Overview</u> for more information.

Problem Format - How a problem will be displayed.

When the Problem Format is set to "Vertical" the problems will be displayed in the following format:

When the Problem Format is set to "Horizontal" the problems will be displayed in the following format:

3 + 2 = 5



Multilevel Problem Sets

When Multilevel is set to "On", then Math Castle will include the problems from the level selected as well as the problems from all lower levels. When Multilevel is set to "Off", then the <u>problem set</u> will contain only problems from the level selected, along with a few review problems from the lower levels. The default setting is "On".



Selecting Level

The level determines the difficulty of the problems that will appear in any given <u>problem set</u>. It also influences the number of problems that will be in the problem set. Higher levels have more problems than lower levels.

For more information see <u>Auto Advancement</u>.



The User Problem Set Editor

Math Castle allows you to use a <u>problem set</u> that you define. This can be a special problem set that you create, or the problems that you need to practice from school.

A "User Defined Problem Set" is a problem set of your own making. The <u>User Set Editor</u> is provided as a means for you to input the problems of your choice.

The <u>User Set Editor</u> can be accessed from the <u>Math Castle Administrator</u> program. Click <u>here</u> for more information.



Setting the Speed of Play

Delay in Seconds

The delay in seconds setting increases the time allowed to answer the problems. The delays available are 0, 1, 2, 4 and 8 seconds.

Please note that this option can be particularly useful for those who are experiencing difficulties.

Whenever a score is less than 60% on any <u>problem set</u>, the delay is automatically increased (up to the maximum of 8 seconds), and whenever the score is equal to or greater than 80%, the delay is shortened (down to the minimum of zero seconds).

A delay setting that is greater than zero decreases the bonus points the player can receive at the end of a game.

See <u>Score</u> for more information.



Setting the Maximum Number of Problems in Problem Sets

Because some problem sets have hundreds of problems in them, this setting is provided to allow you to select the maximum number of problems that will be allowed in any given <u>problem set</u>. You can select as few as 8 and as many as 640.

If you set the "Maximum Number of Problems" to a number greater than the number of problems contained in the problem set selected, then all the problems in that problem set will be given. If the "Maximum Number of Problems" setting is set to less than the number of problems in the problem set selected, then problems are selected randomly from the problem set until the maximum number allowed setting has been reached.



Completion Indicator

On the line bordering the bottom of the screen, the number of problems completed and/or remaining is graphically represented by an indicator "" that moves along this line from left to right as the game progresses. When the indicator is fully to the right the game is complete.



Shield power is displayed in a small box on the lower right hand side of the screen. When this drops below 1000 a warning is sounded. When it drops to zero, your shield is down. When your shield goes down, (or fails), the mother ship will appear and destroy the castle. But...

Even when the child loses, we try to make it a positive experience by telling them how that they had the wisdom to prepare for such a contingency and that they therefore were able to transport themselves and all their loyal subjects out of the castle before it was destroyed, and that their castle is being rebuilt.