Quick Start

MS-DOS

- Start your computer using DOS 2.1 or higher.
- Insert the program disk, label side up, into a floppy drive.
- Type the letter of the drive (a: or b:) and press <Enter>.
- At the prompt, type **math** and press <Enter>.
- Select a graphics mode.

Macintosh

- Start your computer with System 6.0.4 or higher.
- Insert the program disk and double-click the *New Math Blaster Plus* icon.

Windows

- *New Math Blaster Plus* for Windows must be installed on your hard disk before you can run it. Please turn to page 47 for instructions.

Sign In

- Enter your name and press <Enter> or click OK.

Select a Subject and a Level


(MS-DOS) Press **F4** for the **Subject** menu and/or press **F5** for the **Level** menu. Use ↓ or ↑ to highlight the desired subject or level; press <Enter> to select.


(All) Click and drag to pull down the **Subject** menu; release when the desired subject is highlighted. Select a level from the **Level** menu in the same way.

Select a Format


(MS-DOS) Press **F5**. Use ↓ or ↑ to highlight **Mixed**, **Vertical**, or **Horizontal**; press <Enter> to select.


(All) Click and drag to pull down the **Level** menu; release when the desired format is highlighted.

Select an Activity


(MS-DOS) Use ↓ or ↑ to highlight an icon; press <Enter> to select.


(All) Click an icon.

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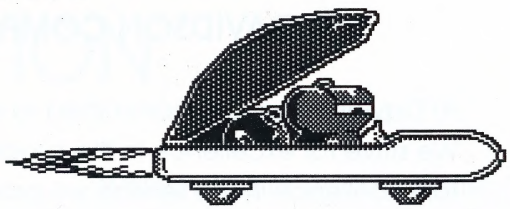

THE DAVIDSON COMPANY CHARTER

At Davidson, we are committed to excellence in education. We strive for excellence in the products we create; we strive for excellence in the service we provide to our customers; we strive for excellence in the way in which we conduct our business. We believe that education enhances the quality of life and that our contribution to the enhancement of education will enrich the customers we serve.

Our Guiding Principles:

- Quality is our first priority.
- Customers are the focus of all our efforts.
- Seeking a better way is essential to our success.
- Employee involvement is our way of life.
- Dealers and suppliers are our partners.
- Integrity cannot be compromised.

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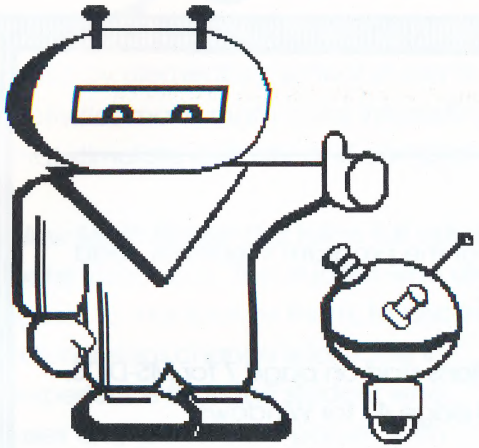
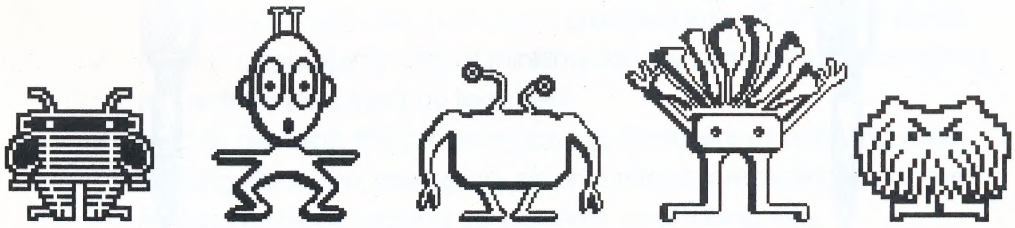
INTRODUCTION 1



Welcome to *New Math Blaster Plus*! The Blasternaut and his robot friend *Spot invite you to take an exciting* journey through space as they make the universe a better and cleaner place to live! Help them get under way by building the rocket they will use to travel to faraway galaxies. Once in space, you will encounter trash aliens who dump their litter everywhere but in the trash can. Help the Blasternaut clean up outer space by zapping the aliens' litter. Continue your journey to a space recycling station and help the Blasternaut and Spot recycle numbers. Finally, help defend the Blasternaut's space stations against the trash aliens.

State-of-the-art graphics and out-of-this-world sounds will hold your interest as you learn essential math facts and develop problem-solving skills. As you accompany the Blasternaut on his important mission, two motivating activities, a challenging problem-solving game, and an action-packed arcade-style game will provide you with successful learning experiences. With *New Math Blaster Plus*, your computer will become a powerful tool for building a strong foundation in math.



USING THIS MANUAL

For a complete description of the program's features, read the Overview on pages 3–6.

Hard disk installation instructions start on page 7 for MS-DOS, page 29 for Macintosh, and page 47 for Windows.

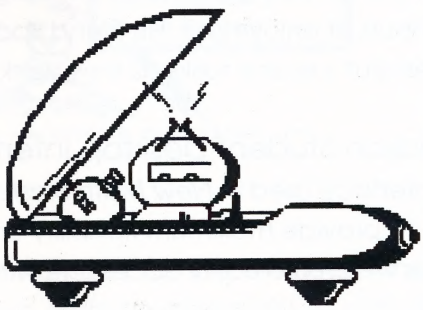
Instructions on how to use the activities begin on page 11 for MS-DOS, page 31 for Macintosh, and page 50 for Windows.

To use the Editor to customize or create a data file, refer to pages 21–27 for MS-DOS, pages 41–44 for Macintosh, and pages 59–62 for Windows.

OVERVIEW

New Math Blaster Plus presents a variety of enriching activities that can be used by elementary-school students at all levels of mathematical ability. The activities make math more interesting and engage students in experiences that stimulate curiosity and comprehension.

New Math Blaster Plus takes full advantage of the unique benefits of computer instruction. The student who uses a computer to learn "mathematical laws," to manipulate them, to discover how these laws are related and how relationships change is far richer in experience than the student who uses only pencil and paper. With *New Math Blaster Plus*, students work at their own pace, receive positive reinforcement, and strengthen their areas of weakness. Most important, students enjoy success as they learn, and lay the foundations for future success.



New Math Blaster Plus can be used both at home and at school; it will

- ✓ provide the basic building blocks of mathematics needed to develop a higher level of thinking;
- ✓ reinforce addition, subtraction, multiplication, division, fractions, decimals, and percents—all the operations introduced in elementary school—with 750 math facts grouped into 30 difficulty levels;
- ✓ assist in developing critical thinking skills by using a highly challenging activity designed by teachers;
- ✓ help to develop the problem-solving strategies of applying rules, making decisions, seeing cause and effect, predicting outcomes, making choices, looking for patterns, and taking risks;
- ✓ make math relevant, interesting, and stimulating.

New Math Blaster Plus is often recommended to parents by teachers as an after-school supplement to classroom instruction. Designed for students ages 6–12 (grades 1–6), the program covers a broad range of material, so all of the children in a family can use *New Math Blaster Plus* year after year. Older students and adults who need to review their math facts can also benefit.

SPECIAL FEATURES MOTIVATE AND ENHANCE LEARNING

Cast of Characters

The animated Blasternaut takes center stage in each activity. Whether working at the recycling center or traveling through space, he'll reward students with hours of enjoyment. His friend Spot joins him and assists in many of the Blasternaut's space tasks as they work to overcome the villainous trash aliens.

Davidson Student Desktop Interface

The interface used in *New Math Blaster Plus* was designed especially for children, to provide maximum flexibility and ease of use. It features pull-down menus which are easily accessible with keyboard or mouse.

On-Line Help

On-line help is available and can be accessed anytime during an activity.

Record Keeping

Students, as well as their parents and teachers, can keep track of their progress with the *New Math Blaster Plus* record-keeping system. Records can be saved and printed out for future reference.

Math Blaster Game High Score List

Top scorers are awarded a place on the Blasternaut Hall of Fame list.

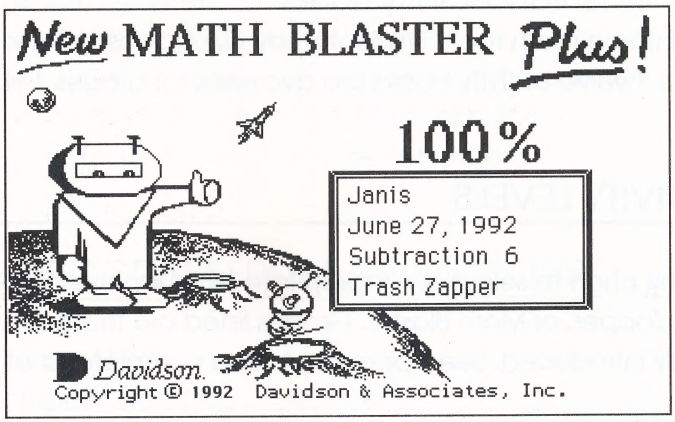
View List of Problems

Every file of math problems may be viewed. This lets parents or teachers quickly check that an appropriate file is being used.

Certificate of Excellence

As students master math facts and earn perfect scores, they can print a graphic or text certificate of excellence. This award provides students with a motivating goal, recognizes their achievement, and reminds them of the fun they had.

Certificate



Editor

To extend the life of the product and customize it for specific needs, the easy-to-use Editor allows you to enter your own math problems for use with all of the activities except the Number Recycler.

Test Maker

The Test Maker will allow you to create and print a math test. The test can be used as a pretest for deciding on an appropriate starting subject or level, or as a post-test for helping to determine whether the facts have been mastered.

Name _____
Room 14 - Mrs. Siegel
September 20, 1992

Multiplication Facts Test
Write the answers to these multiplication problems.

1. 3 x 3 =	21. 4 x 9 =
2. 3 x 4 =	22. 5 x 6 =
3. 3 x 5 =	23. 7 x 9 =
4. 3 x 6 =	24. 6 x 7 =

Review Lessons

These data files contain problems with inverse operations (for example, addition and subtraction) within the same family of facts—an excellent way to review math facts and extend learning.

Supplementary Activity Books

To reinforce math facts, students may use Davidson's *Math Blaster Plus* activity books. Twelve activity books are available for grades 1–4.

ACTIVITY LEVELS

Use this chart to select an appropriate difficulty level for Rocket Launcher, Trash Zapper, or Math Blaster. Grades listed are those in which the facts are usually introduced. See Appendix A for a complete list of the data files.

Grade 1	Addition Levels 1, 2, 3	Subtraction Levels 1, 2, 3	Review Level 1
Grade 2	Addition Levels 4, 5, 6	Subtraction Levels 4, 5, 6	Review Level 2
Grade 3	Multiplication Levels 1, 2, 3	Division Levels 1, 2, 3	Review Level 3
Grade 4	Multiplication Levels 4, 5, 6	Division Levels 4, 5, 6	Review Level 4
Grade 5	Fractions, Decimals, Percents Levels 1, 2, 3		Review Level 5
Grade 6	Fractions, Decimals, Percents Levels 4, 5, 6		Review Level 6

Use this chart to select appropriate Subjects for Number Recycler.

1. Addition	Grades 1–6	**4. Multiplication**	Grades 3–6
2. Subtraction	Grades 1–6	**5. Division**	Grades 4–6
3. Add., Subtraction	Grades 2–6	**6. Mult., Division**	Grades 5–6

MS-DOS VERSION

7

SYSTEM REQUIREMENTS

In order to use *New Math Blaster Plus,* you will need an IBM, Tandy, or other MS-DOS compatible computer with:

- ✓ 512K, 1 or 2 disk drives, monitor
- ✓ CGA, EGA, MCGA, VGA, or Hercules card
- ✓ DOS 2.1 (Tandy DOS 2.11.24) or higher
- ✓ printer, mouse (both are optional)

STARTING THE PROGRAM FROM A FLOPPY DISK

To start *New Math Blaster Plus*:

- Start the computer with DOS 2.1 or higher.
- Insert the program disk in a floppy drive. Type the letter of the drive that the program disk is in (a: or b:) and press <Enter>.
- At the prompt, type **math** and press <Enter>.
- You will be asked to select a graphics mode. From the list on the screen, enter the number that corresponds to the type of display adapter in your computer. The program will start automatically.
- Now sign in. See "Signing In" at the top of page 10.

INSTALLING *NEW MATH BLASTER PLUS* ON A HARD DISK

- Start your computer using DOS 2.1 or higher.
- Put the *New Math Blaster Plus* program disk in a floppy drive. Type the letter of the drive that the program disk is in (a: or b:) and press <Enter>.
- At the prompt, type **hdinstal c:\math** and press <Enter>. You may install to a hard disk of another name or to a subdirectory within an existing directory (for example: **hdinstal d:\educ\math**).

- Enter the number that corresponds to the type of display adapter in your computer.
- The program will install. Now you are ready to run *New Math Blaster Plus* from your hard drive.

To change your choice of graphic adapter at a later time:

- From the c>, type **cd math** and press <Enter>.
- From the prompt, type **setup**; press <Enter>; choose a display adapter.

To run *New Math Blaster Plus* from your hard disk:

- After installation, change to the directory where you installed math.
- Type **c:** (or other hard drive designation); type **cd math;** press <Enter>.
- At the prompt, type **math** and press <Enter> to start the program.

To create a subdirectory to store custom data:

- At the prompt, type **md c:\math\newdata** and press <Enter>.

To remove the program from the hard disk, follow the installation instructions on page 7, but substitute **uninstal** for **hdinstal**.

MOVING AROUND IN THE PROGRAM

Menu titles are at the top of the screen. If an item on the menu is grayed or dimmed, you cannot select it at that time. Some menu items are available only from the Main screen; some are available only during certain activities.

Using the Keyboard to Make Selections:

From Menus

- Press an **<F>** key (F2, F3, F4, F5) to pop down the menu of your choice; use the ↓ or ↑ key to highlight your selection; press <Enter>.
- Shortcut: Some menu items are followed by **^** and a letter (**^S**). Press **<Ctrl>** and the letter key at the same time. This accesses the menu item directly without going to the menu first.

On the Screen

- On the Main screen, use the ↓, ↑, →, and ← keys to move the highlighted border to the activity icon of your choice; press <Enter> or select **Start** from the Activity menu to go to that activity.
- When options or choices on the screen are outlined or boxed, press **<Tab>**, or ↓ or ↑, to move the highlighted border; then press <Enter>.
- The **<Backspace>** key can be used to erase during an activity.
- The scroll bar is a rectangular bar along the right side or bottom of a window. Use arrow keys to see the off-screen portion of the document.

Using a Mouse to Make Selections:

Click – Press the mouse button and quickly release.
Double-click – Press and release the mouse button twice in quick succession without moving the mouse.
Click and Drag – Press and hold the mouse button. Drag the pointer to highlight text or to move special characters. Release the mouse button when you arrive at the desired location.

From Menus

- Move the pointer to a menu title. Click and drag until the item you wish is highlighted. Release the mouse button to select the item.

On the Screen

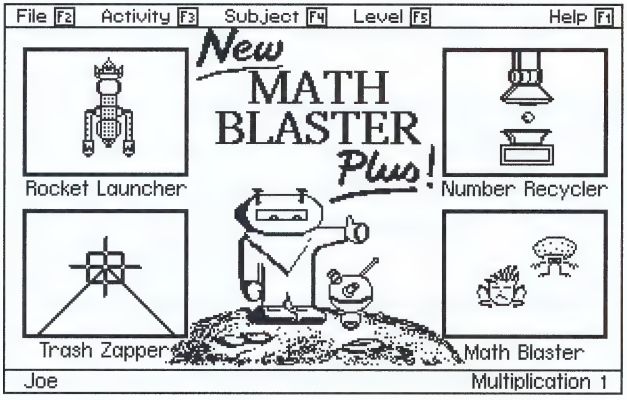
- On the Main screen, each activity is represented by an icon (a picture). Point and click to select an activity.
- When options or choices on the screen are outlined or boxed, point and click the box of your choice; click the OK button to continue.
- The scroll bar is a rectangular bar along the right side or bottom of a window. Click and drag the box in the scroll bar to view the off-screen portion of the document.

SIGNING IN

- Type a name (up to 20 characters) in the box. Press <Enter> or click OK.

SELECTING A SUBJECT, LEVEL, AND FORMAT

Main Screen



At the Main screen, select a subject, level, and format.

- From the **Subject** menu, select a subject: Addition; Subtraction; Multiplication; Division; Fractions, Decimals, and Percents; or Review.
- From the **Level** menu, select a difficulty level: Level 1 through Level 6.
- Access the **Level** menu again and choose a problem format: Mixed, Vertical, or Horizontal.

It is a good idea to select a printer now if you intend to print a scoreboard or certificate later:

- From the **File** menu, select the type of printer you are using.

You can start your computer with specific menu items of your choice already selected. Your choices can be saved as defaults. See "Saving Menu Defaults" on page 20.

USING THE ACTIVITIES

Select an activity (represented by the four icons on the Main screen) by using arrow keys and pressing <Enter>, or by clicking the desired activity icon. Press **<F1>** to receive on-screen Help while in any activity.

Activity 1 – Rocket Launcher

The focus of Rocket Launcher is to reinforce math facts. Choose **Study** or **Solve**. (To change between Study and Solve any time during the activity, press ^O.)

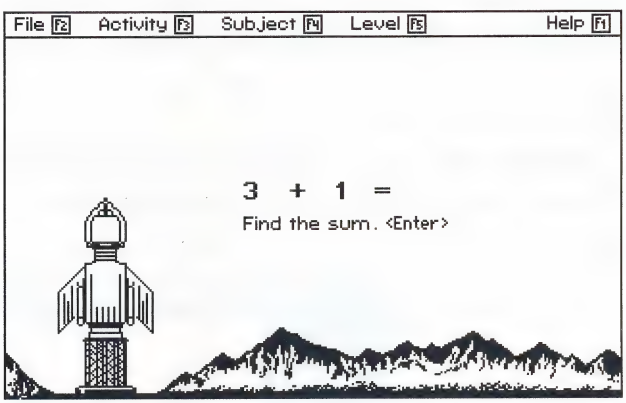
The **Study** option allows you to preview an equation before solving it.

- Study the problem. Press the spacebar to make the answer disappear.
- Type the correct answer into the equation; press <Enter>.

The **Solve** option challenges you to solve the equation without help.

- Type the correct answer into the equation; press <Enter>.

Rocket Launcher Screen



As you solve problems, a rocket gradually assembles on the launch pad. When all problems have been answered correctly and the rocket is built, the Blasternaut gets in the rocket and blasts off.

After two incorrect tries, the correct answer will appear. The rocket will blast off only after all the problems are answered correctly. The player can retake missed problems in order to get 100%.

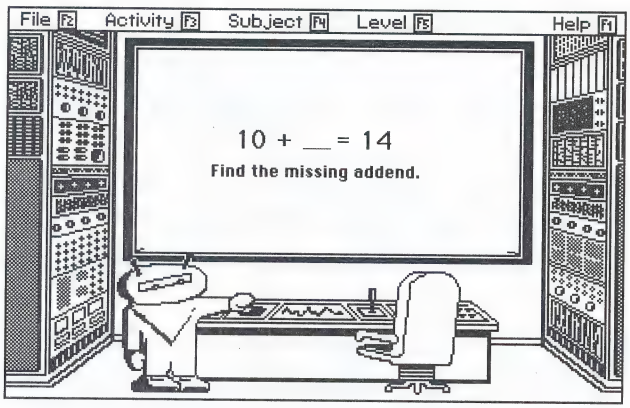
Activity 2 – Trash Zapper

The goal of Trash Zapper is to find a missing value in an equation.

- Type the missing number; press <Enter>.

After two incorrect tries, the correct answer will appear.

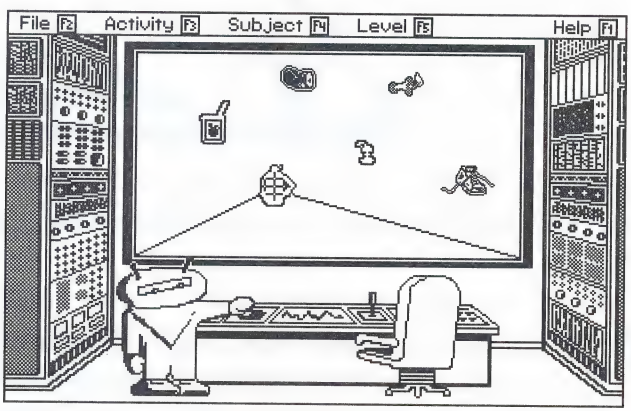
Trash Zapper Equations



After five problems, the student gets a chance to help the Blasternaut clean up litter from the space environment. Two zaps are awarded for each of the student's correct answers.

- Use ↓, ↑, →, and ← to aim the laser scope at the trash.
- Press the spacebar to zap the floating litter.

Zapping Litter

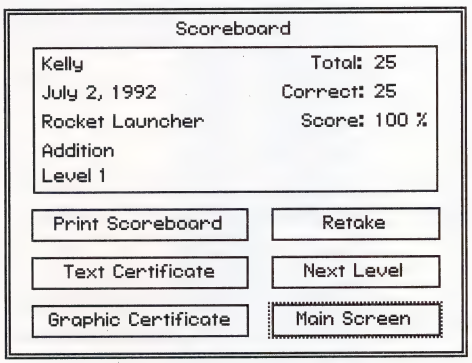


Scoreboard for Activities 1 and 2

A scoreboard will be displayed at the end of each of these activities. (The date has been set automatically by the clock in your computer.)

- Select one of the six options to continue.

Scoreboard



Printing Options – If you remembered to select the correct printer (see page 10), the scoreboard may be printed. The text or graphic certificate printing options are available only if students earn 100% by getting problems right on the first try.

Other Options – Students can retake problems missed, go on to the next level of difficulty, or return to the Main screen to select another activity. The student's score will be saved only if Record Keeping has been turned on. (See "Using Record Keeping" on page 16.)

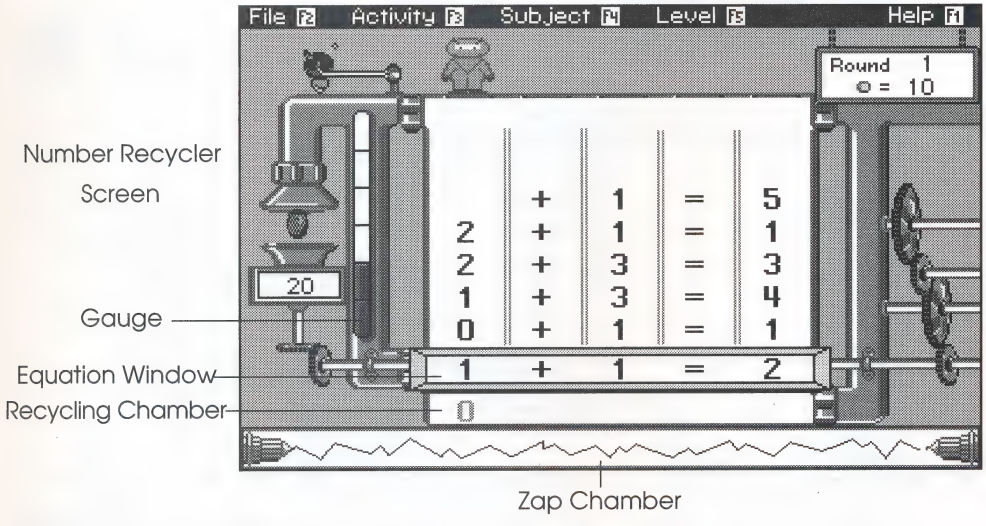
Activity 3 – Number Recycler

The Number Recycler is designed to build critical thinking skills. In this game, you take risks, analyze number combinations, and make decisions.

At the start of this activity, an option box will appear.

- Select a subject and a round. To change the subject or the round any time during the activity, select **Options** from the Activity menu. The Subject menu and Level menu are not used with this activity.

The object of the game is to get to the next round by forming the required number of equations. You help the Blasternaut make equations contained within the recycling machine.



- Move the Blasternaut using → and ← until he is above the column where a number or symbol is to be moved.
- Press the spacebar to push a number or symbol down in a column.
- Press <Enter> when a correct equation appears in the window.

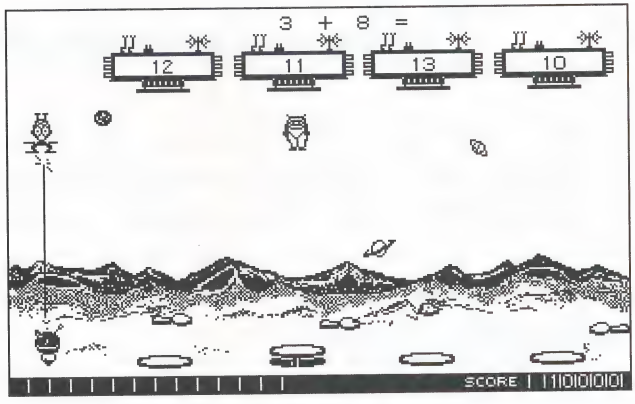
When a number or a symbol is pushed down into the recycling chamber, it will be reused. If a number or a symbol is pushed below the recycling chamber into the zap chamber, it will be zapped and disappear.

- Press **<Ctrl>U** to undo the last move.
- Press **<Ctrl>C** to check for more equations or to end the round.

Coins are earned as equations are made. Each coin is worth 10 points in Round 1. Each coin's value increases by 10 points in each round—up to 100 points in Round 10. If you successfully complete Rounds 1–10, you may print a certificate.

Activity 4 – Math Blaster

In this arcade-style math game, a math problem appears on the screen and different answers appear in four space stations above the planet. The object is to get the Blasternaut to the space station containing the correct answer in time, and without being hit by any flying objects. (If he's hit, he loses power.) Watch out! Trash aliens are trying to land on the planet to spread their litter. If they reach Spot, time is up and the correct answer flashes on the screen.



Math Blaster Game

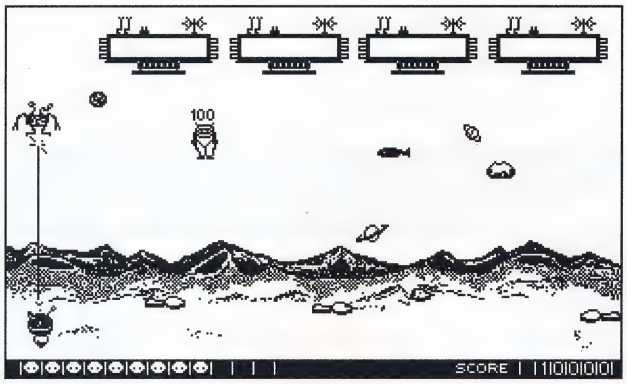
- Select a skill level.
- Choose **keyboard** or **mouse**.

  Move the Blasternaut horizontally with → and ←. Press ↑ or the spacebar to make him fly. (He flies best if keys are tapped lightly.)

  The Blasternaut moves when and where the mouse is moved. To make him fly, click the mouse button.

Bonus Round – After each phase, various food items appear on-screen. The Blasternaut flies through space collecting food and bonus points. The bonus round lasts until the alien reaches Spot; then regular game play continues. There is no bonus round at the Beginner level of play.

Bonus Round



Scoring is as follows: Phase 1 = 1000 points for each correct answer; Phase 2 = 2000 points; Phase 3 = 3000 points; Phase 4 = 4000 points; Phase 5 = 5000 points. Players with the top ten scores appear on the high score list.

USING RECORD KEEPING

Records may be viewed on-screen or printed out to help parents and teachers evaluate a student's progress and diagnose a need for further practice.

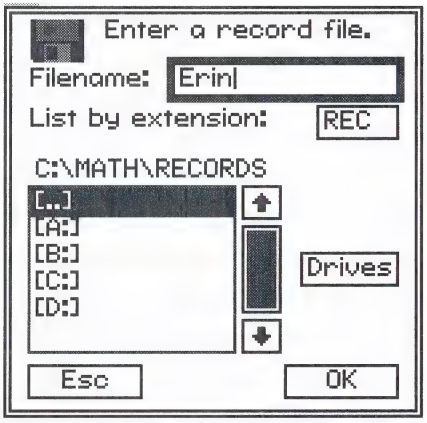
If you are running *New Math Blaster Plus* from a hard disk, you will notice that the install program has created a subdirectory called **\records** into which you can save scores. If you wish to save records on a floppy disk, format a blank disk using DOS 2.1 or higher.

- Start the *New Math Blaster Plus* program and sign in.
- Select **Record Keeping** from the File menu. A ✓ in front of Record Keeping on the File menu indicates that it is on.

When New Student is selected, Record Keeping automatically turns off.

When you turn Record Keeping on, the File Requestor Box will be displayed on the screen. You must indicate where you want the records to be saved. This means choosing drive A, drive B, or a hard disk drive.

The File Requestor Box



An extension after a filename tells what kind of file it is. Record filenames will automatically be given the extension **.REC**; custom data files will be given the extension **.DAT**. The extension that appears in the **Extension** box shows which kind of files are listed. To use your own extension, add a dot and three characters to the filename.

Brackets [ ] denote a directory. [Records] is a record directory. Selecting [..] returns you to a parent directory. To move around in the File Requestor Box, press **<Tab>** or click the appropriate box.

To list **all** of the files on the disk regardless of their extensions:

- Press **<Tab>** or click the **Extension** box.
- Delete the extension that appears; enter an * and press <Enter>. All of the files on the disk will be displayed.

To save records to a floppy disk using a one-drive system:

- Take out the program disk and put a formatted disk in drive A.
- Press ↓ or scroll down to **[A]**, and press <Enter>.
- Type in a name for the record (8 characters or less). **.REC** will be added for you, or you can type in your own extension. Press <Enter>.
- Put the program disk back in drive A and press <Enter>.

To save records to floppy disk using a two-drive system:

- Put a formatted disk in drive B.
- Press ↓ or scroll down to **[B]**, and press <Enter>.
- Type in a name for the record (8 characters or less). **.REC** will be added for you, or you can type in your own extension. Press <Enter>.

To save records to a hard disk:

- Press ↓ or scroll down to **[C]** or the drive where your records sub-directory is located; press <Enter>.
- Press ↓ or scroll down to **[Records]** or the subdirectory where your records are located; press <Enter>.
- Type in a name for the record (8 characters or less). **.REC** will be added for you, or you can type in your own extension. Press <Enter>.

If you want to add records to an existing file:

- Follow the appropriate steps above to select the correct drive.
- Type in the name of the file, or press ↓ or scroll down to the name; press <Enter>.

Saving a Score in a Student's Record File

When a student completes an activity, the program automatically goes to the last drive selected to save the score. If the record file is not found there, the message "Cannot find (location and filename)" is displayed. You can **Retry** or **Continue**. If you choose Continue, the message "Choose a new record" is displayed. You may **Cancel** or select **OK**. If Cancel is selected, the score will not be saved. If you select OK, the active directory will be displayed.

Viewing a Student's Record File

- Select **View Record** from the **File** menu.
- When the directory of the correct drive is displayed, select the name of the file to be viewed and press <Enter>. The first page of the record will appear on the screen.
- To view additional pages, press ↑ or ↓ or click and drag the scroll bar.

Printing a Student's Record

- Pull down the **File** menu and choose a printer if you haven't already done so.
- Select **View Record** from the File menu.
- When the directory of the correct drive is displayed, select a filename and press <Enter>. The first page of the record will appear.
- To print the whole record file, select the **Print** button and press <Enter>. (The default is to print all records.) Press <Enter> again or click OK.
- To print only specific records, first select the **Print** button and press <Enter>. In the **From** box, type the number of the first record to be printed. In the **To** box, type the number of the last record to be printed. Press <Enter> or click OK. Only those records will be printed.

Deleting a Record File

- Select **Delete a Record File** from the File menu.
- When the directory is displayed on-screen, highlight the name of the record to be deleted and press <Enter>.
- Click OK or **<Tab>** to the OK button and press <Enter>.

VIEWING A LIST OF PROBLEMS (DATA FILE)

Any *New Math Blaster Plus* data file (original or custom) can be previewed on the screen.

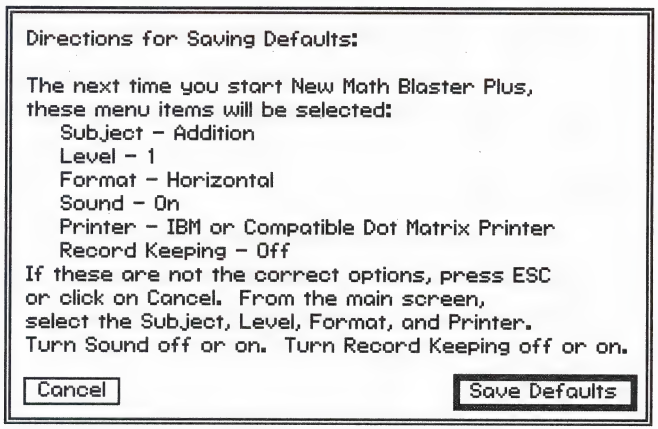
- Select the file to be viewed from the **Subject** and **Level** menus.
- Select **View Problems** from the Activity menu. All the problems in that data file will appear on the screen.
- To leave the View Problems screen, press <Enter> or click OK.

SAVING MENU DEFAULTS

You can start the computer with specific menu items already selected. Your choices will be saved as menu defaults.

- Make your Subject, Level, Format, Record Keeping, Sound, and Printer choices from the Main screen.
- Select **Save Menu Defaults** from the **File** menu. This box will appear, showing your choices.

Save Menu Defaults Box



- If the choices shown on the screen are correct, click **Save Defaults** or **<Tab>** to **Save Defaults** and press <Enter>. If not, select **Cancel**, return to the Main screen, and change the choices.

MS-DOS EDITOR

21

You can create your own sets of problems to use with three *New Math Blaster Plus* activities—Rocket Launcher, Trash Zapper, and Math Blaster. The data files you create can be saved on a separate disk or on your hard disk.

- Format a blank disk using DOS 2.1 or higher, or create a subdirectory on your hard disk (type **md c:\math\newdata**).
- Insert the program disk and sign in.
- Select **Editor** from the Main screen's File menu.

CREATING A CUSTOM DATA FILE

You are now ready to create a new data file (up to 39 math problems).

STEP ONE

Using the keyboard, type a problem (including the correct answer); press <Enter> to continue.

Follow these guidelines:

- ✓ Use ➡ and ⬅ to move the cursor right and left. (Using the backspace key will erase characters to the left of the cursor.)
- ✓ Separate numbers and signs with spaces; for example: **2 + 4 = 6** or **1 + 3/4 = 1 3/4**. (Do not use spaces around a fraction bar.)
- ✓ The maximum length for a problem is 15 characters and spaces.
- ✓ Use only these symbols when typing a problem:

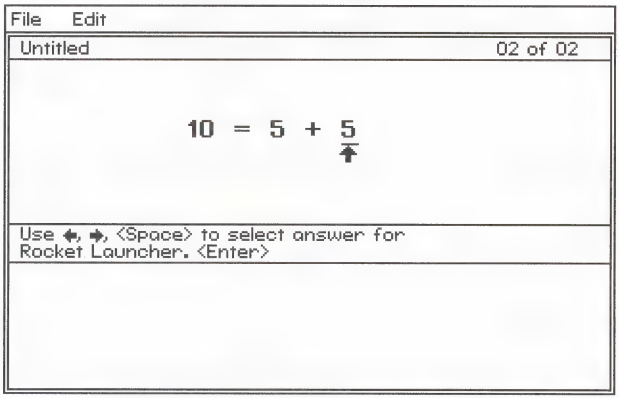
  + (plus) for addition
  – (hyphen) for subtraction
  : (colon) for division
  x (lower case) for multiplication
  % (percent) for percent sign
  . (period) for decimal point
  / (slash) for fractions

STEP TWO

Mark the correct answer for the Rocket Launcher activity.

- Use → and ← to move the pointer. (It will stay on the right side of the equal sign.)
- Press **<Space>** to underline the number which is to be the answer supplied by the student.
- Press <Enter> to continue.

STEP TWO
Mark Answer for
Rocket Launcher

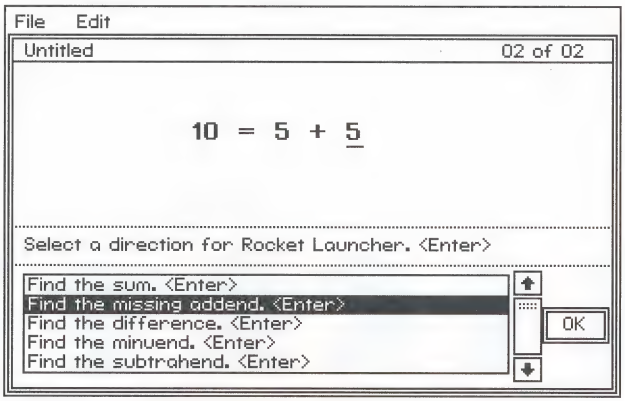


STEP THREE

Select the directions for Rocket Launcher.

- Highlight the desired directions; press <Enter> or click OK to select them. They will appear on the screen beneath the problem.

STEP THREE
Select Directions for
Rocket Launcher



STEP FOUR

Mark the correct answer for the Trash Zapper activity.

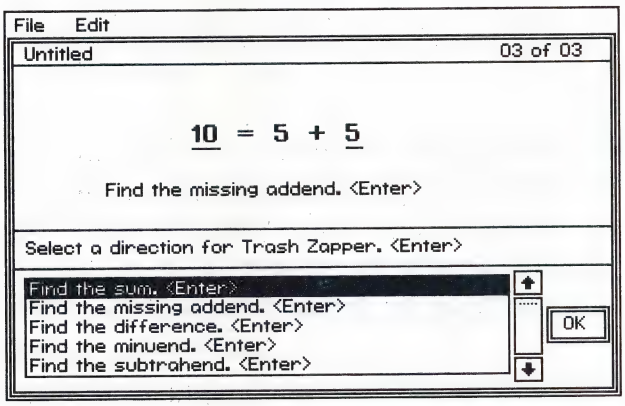
- Use ➡ and ⬅ to move the pointer. (It will stay on the left side of the equal sign.)
- Press **<Space>** to underline the number which is to be the answer supplied by the student.
- Press <Enter> or click OK to continue.

STEP FIVE

Select the directions for Trash Zapper.

- Highlight the desired directions; press <Enter> or click OK to select them. They will appear on the screen beneath the problem.

STEPS FOUR & FIVE
Mark Answer and
Select Directions for
Trash Zapper



STEP SIX

Add more problems to the file.

- After each complete problem has been entered, press or click ⬇ to add the next problem.
- Repeat Steps 1–5 to enter a new complete problem.
- Press ⬆ to see previous problems.

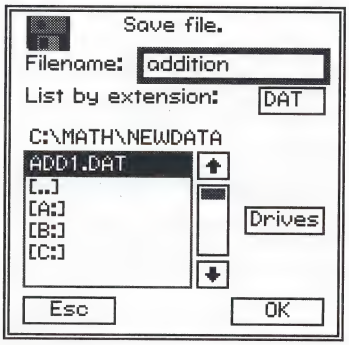
STEP SEVEN

Save your file.

- Select **Save** from the File menu. The File Requestor Box will appear.

The File Requestor Box

See page 17
for a detailed explanation
of the File Requestor Box



If you are using a one-drive system:

- Take out the program disk and insert the formatted disk in drive A.
- Press ↓ or scroll down to **[A]**, and press <Enter>.
- Type a name for the data file (8 characters or less). **.Dat** will be added for you, or you can type in your own extension. Press <Enter>.
- Put the program disk back in drive A.

If you are using a two-drive system:

- Put the formatted disk in drive B.
- Press ↓ or scroll down to **[B]**, and press <Enter>.
- Type a name for the data file (8 characters or less). **.Dat** will be added for you, or you can type in your own extension. Press <Enter>.

If you have a hard disk:

- Make sure you have a subdirectory in which to store your data. (See page 8.)
- Press ↓ or scroll down to **[C]** or the drive where your data subdirectory is located, and press <Enter>.
- Press ↓ or scroll down to **(Newdata)** or the subdirectory where your data is located; press <Enter>.
- Type a name for the data file (8 characters or less). **.Dat** will be added for you, or you can type in your own extension. Press <Enter>.

*Use **Save** to save changes made to a data file. Use **Save as** if you wish to change the name of a file or save it to another disk or subdirectory.*

EDITING A FILE

Once you are in the Editor, open the file you wish to change or correct.

- Select **Open** from the Editor's File menu.
- Select the name of the file to open.
- Click and drag the scroll bar or use ↓ or ↑ to get to the problem you wish to change.
- Make the change; press <Enter> to move to Step 2.
- Follow Steps 2–5 (pages 22–23) to complete the problem.
- Be sure to save the changes you have made to your file.

A new problem can be inserted into a file.

- Find the problem before which a new problem is to be inserted. (Click and drag the scroll bar, or use ↓ or ↑.)
- Select **Insert** from the Edit menu.
- Follow Steps 1–5 under "Creating a Custom Data File" to type the new problem(s) and mark the answers and directions that go with it. All the problems will be renumbered automatically. Be sure to save the file.

A problem can be deleted from a file.

- Find the problem to be deleted. (Click and drag the scroll bar or use ↓ or ↑ to get to the problem to be deleted.)
- Select **Delete** from the Edit menu. Problems will be renumbered.

VIEWING A DATA FILE

Any *New Math Blaster Plus* file (original or custom) can be viewed.

- Select **Open** from the Editor's File menu. Choose the file you wish to view.
- Now select **View File** from the File menu.
- To leave the View File screen, press <Enter> or click OK.

PRINTING

To print a *New Math Blaster Plus* data file (original or custom):

- Pull down the Editor's **File** menu to select a printer.
- Select the file to be printed.
- Select **Print File** from the File menu.

To print the file in test format (with problems in regular order or random order):

- Pull down the Editor's **File** menu to select a printer.
- Select the file to be printed.
- Select **Print Test** or **Print Random Test** from the File menu.
- Type in the information you wish to appear beneath the line for the student's name. Specify a title and one line of directions; press <Enter>. See page 5 for a sample printout.

Since most printers will not print a division sign character, a colon (:) will be printed instead. A horizontal line may be drawn between the dots, thus creating the proper sign.

USING YOUR NEW FILE WITH *NEW MATH BLASTER PLUS*

To use the new file with Rocket Launcher, Trash Zapper, and Math Blaster, follow the steps below:

- After saving the new file, exit the Editor by pulling down the **File** menu and selecting **NMBP**.
- Select **Your Data** from the Main screen's Subject menu. The File Requestor Box will appear. (See page 17 for a detailed explanation.)

If you are using a one-drive system:

- Take out the program disk and insert the formatted disk in drive A.
- Press ↓ or scroll down to **(A)**; press <Enter>.
- Press ↓ or scroll down to find the name of the data file; press <Enter>.
- Put the program disk back in drive A.

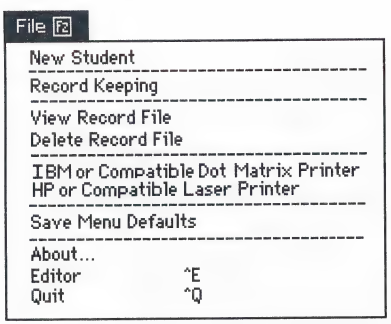
If you are using a two-drive system:

- Put the formatted disk in drive B.
- Press ↓ or scroll down to **[B]**; press <Enter>.
- Press ↓ or scroll down to find the name of the data file; press <Enter>.

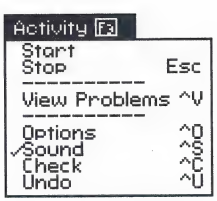
If you are using a hard disk:

- Press ↓ or scroll down to **[C]** or the drive where your data subdirectory is located, and press <Enter>.
- Press ↓ or scroll down to **[Newdata]** or the subdirectory where your data is located; press <Enter>.
- Press ↓ or scroll down to find the name of the data file; press <Enter>.

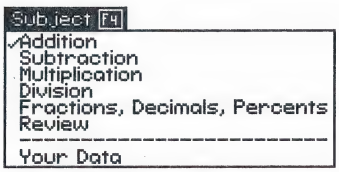
MAIN SCREEN MENUS



File F2
New Student – change student
Record Keeping – turn on/off
View Record File – view or print student's scores
Delete Record File – delete student's record file
IBM or Compatible Dot Matrix Printer – choose a printer type
HP or Compatible Laser Printer – choose a printer
Save Menu Defaults – save menu selections
About – about the authors
Editor – access the Editor to create new data files
Quit – quit the entire program



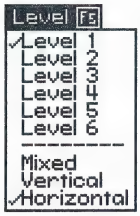
Activity F3
Start – begin selected activity
Stop – exit from activity
View Problems – see chosen list of problems
Options – change within an activity
Sound – turn on/off
Check – check for equations in Number Recycler
Undo – undo last move in Number Recycler



Subject F4

These are the subjects available in the *New Math Blaster Plus* program.

Your Data – use a custom data file



Level F5

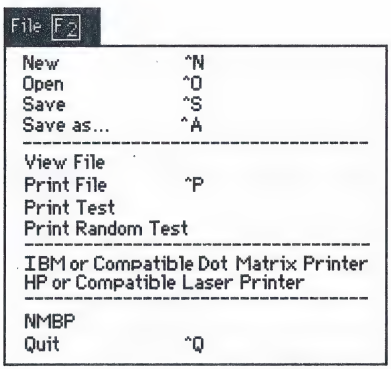
Levels 1–6 are the difficulty levels of the problems in each subject area (see Appendix A).

Mixed – problems in combined format

Vertical – problems presented vertically

Horizontal – problems presented horizontally

EDITOR MENUS



File F2

New – create a new file

Open – open an existing file

Save – save a file on disk

Save as – rename and save a file

View File – view the entire file

Print File – print the entire file

Print Test – print a test with the problems in order

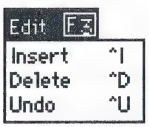
Print Random Test – print a test with the problems displayed in random order

IBM or Compatible Dot Matrix Printer – select printer type

HP or Compatible Laser Printer – select printer type

NMBP – return to main program

Quit – leave the program



Edit F3

Insert – insert a problem

Delete – delete an entire problem

Undo – cancel the last action

MAC VERSION

In order to use *New Math Blaster Plus*, you need

- ✓ a Mac Plus, SE, or Classic with 1 mb of memory, or a Mac LC, SI, II, IICX, IICI, or IIFX with 2 mb of memory
- ✓ System 6.0.4 or later
- ✓ a printer (optional)

INSTALLING *NEW MATH BLASTER PLUS* ON A HARD DISK

- Start the computer from the hard disk.
- Select **New Folder** from the **File** menu. Name it *New Math Blaster Plus*.
- Insert the program disk into the disk drive. Double-click the **disk icon**.
- Click and drag **all three program and data files** from the *New Math Blaster Plus* floppy disk into the new folder on your hard disk.

To run *New Math Blaster Plus* from your hard disk:

- Start your computer from the hard disk.
- Double-click the *New Math Blaster Plus* **folder** to open it.
- Double-click the *New Math Blaster Plus* **program icon**.

To remove the program from the hard disk:

- Click and drag the *New Math Blaster Plus* folder to the trash icon. This will erase the folder, the program, and all data files.

STARTING THE PROGRAM FROM A FLOPPY DISK

- Start the computer with System 6.0.4 or higher.
- Eject the system disk and put in the program disk. Follow screen prompts to change disks.
- Double-click the *New Math Blaster Plus* **disk icon** to open it.
- Double-click the *New Math Blaster Plus* **program icon**.

MOVING AROUND IN THE PROGRAM

Features of the Macintosh such as the mouse, menu bar, scroll bar, and keyboard alternatives are briefly explained here and in the Help menu. If you need additional help, please refer to your Macintosh tutorial disk or the manual that came with your computer.

Mouse Terms

Click – Press the mouse button and quickly release.
Double-click – Press and release the mouse button twice in quick succession without moving the mouse.
Click and Drag – Press and hold the mouse button. While holding the mouse button, drag the pointer to highlight text or to move special characters. Release the mouse button when you arrive at the desired location.

Menu Bar

Menu titles are located at the top of the screen. To select a menu item, click a menu title, drag through the menu to highlight the item, and release the mouse. If a menu item is dimmed or grayed, it is not accessible at that time.

Scroll Bar

The scroll bar is a rectangular bar along the right side or bottom of the window. Click the arrows or click and drag the little white box to change the view of the document. Do this if the screen doesn't show the entire document.

Keyboard Alternatives

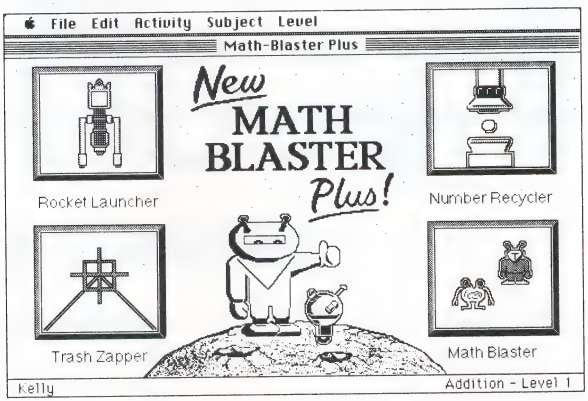
Some menu items are followed by ⌘ and a letter (e.g., **⌘E**). These keyboard shortcuts make it unnecessary to access the menus. To use, press ⌘ and the indicated letter key at the same time. In the activities and dialog boxes, pressing <Return> is an alternative to clicking OK or Continue. The <Delete> key can be used to erase a letter or word during an activity.

SIGNING IN

- Type a name (up to 18 characters) in the box. Press <Return>.

SELECTING A SUBJECT, LEVEL, AND FORMAT

Main Screen



At the Main screen, select a subject, level, and format.

- From the **Subject** menu, select a subject: Addition; Subtraction; Multiplication; Division; Fractions, Decimals, and Percents; or Review.
- From the **Level** menu, select a difficulty level: Level 1 through Level 6.
- From the **Activity** menu, select **Problem Format**. Choose Mixed, Vertical, or Horizontal format.

USING THE ACTIVITIES

The activities are represented by icons on the Main screen. Select an activity by clicking the desired activity icon.

*For on-screen Help, select **Help** from the menu at any time during an activity.*

Activity 1 – Rocket Launcher

The focus of Rocket Launcher is to reinforce math facts. Choose an option—**Study the problems** or **Solve the problems**. (To change the option at any time during the activity, press **⌘O**.)

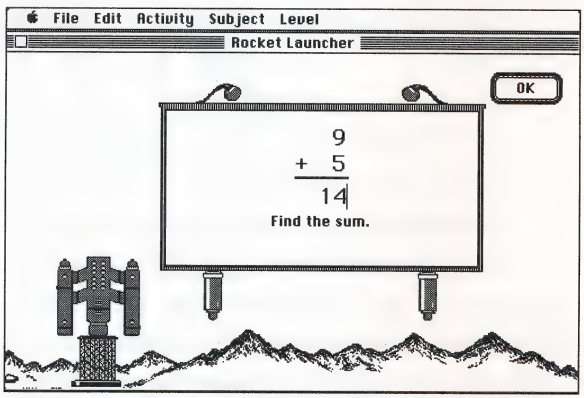
The **Study** option allows you to preview an equation before solving it.

- Study the problem that appears on the screen.
- Click or press any key to make the answer disappear.
- Type the correct answer into the equation; press <Return> or click OK.

The **Solve** option challenges you to solve the equation without help.

- Type the correct answer into the equation; press <Return> or click OK.

Rocket Launcher Screen



As you solve problems, a rocket is gradually assembled on the launch pad. When all problems have been answered correctly and the rocket is built, the Blasternaut gets into the rocket and blasts off.

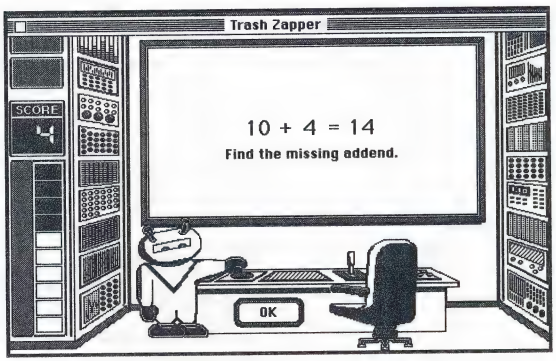
After two incorrect tries, the correct answer will appear. The rocket will blast off only after all the problems are answered correctly. The player can retake missed problems in order to get 100%.

Activity 2 – Trash Zapper

The goal of Trash Zapper is to find a missing value in an equation.

- Type the missing number; click OK.

Trash Zapper
Equation Screen

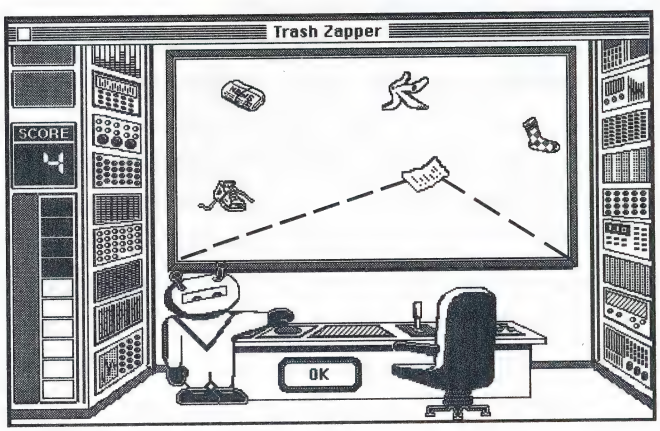


After two incorrect tries, the correct answer will appear.

After five problems, the student gets a chance to help the Blasternaut clean up litter from the space environment. Two zaps are awarded for each of the student's correct answers.

The game is set to use the mouse. Make sure that the mouse pointer stays inside the game window. Use the mouse to aim the laser scope at the trash. Click to zap the floating litter from space. To use the keyboard, press ⌘O. Press ↓, ↑, →, or ← to aim the laser scope. Press **<Space>** to zap the floating litter.

Trash Zapper Game

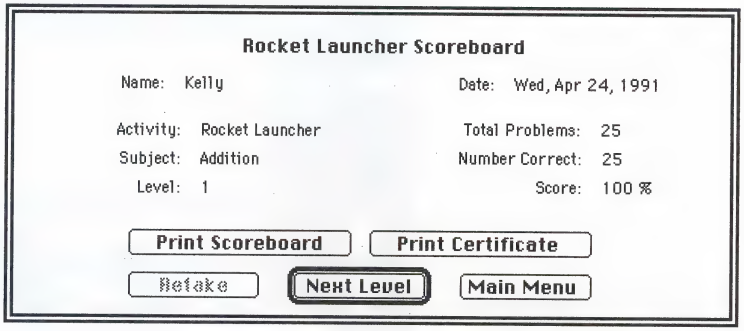


Scoreboard for Activities 1 and 2

A scoreboard will be displayed at the end of each of these activities.

- Click an option to continue.

Scoreboard



Printing Options: The scoreboard may be printed. The printing option for the certificate is available only if the student earns 100% by getting problems right on the first try.

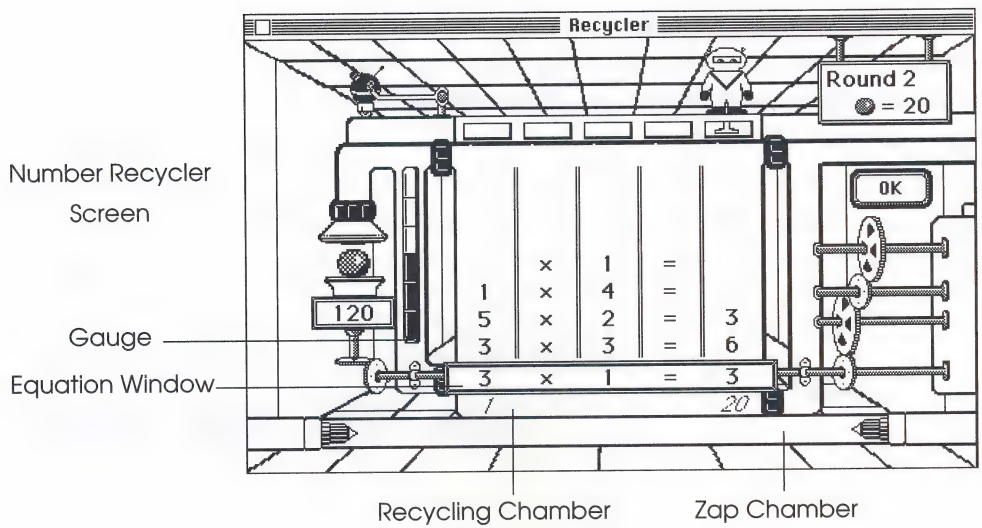
Other Options: Students can retake missed problems, go on to the next level of difficulty, or return to the Main screen to select another activity. The student's score will be saved only if Record Keeping has been turned on. (See "Using Record Keeping" on page 37.)

Activity 3 – Number Recycler

The Number Recycler is designed to build critical thinking skills. In this game, you take risks, analyze number combinations, and make decisions.The object of the game is to get to the next round by forming the required number of equations. You help the Blasternaut make equations contained within the recycling machine.

At the start of this activity, an option box will appear.

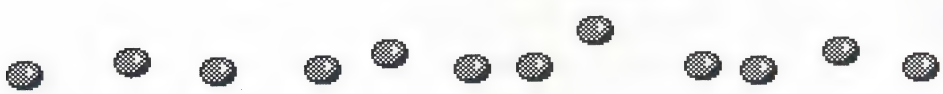
- Click a subjectand select a round. To change the subject or round any time during the activity, press ⌘O or select **Options** from the Activity menu.



- Click the buttons at the top of the columns to move the Blasternaut to the column where a number or symbol is to be pushed down.
- Click again to push a number or symbol downward in a column.
- Click **OK** when a correct equation appears in the window.

When a number or a symbol is pushed down into the recycling chamber, it will be reused. If a number or a symbol is pushed below the recycling chamber into the zap chamber, it will be zapped and disappear.

- Press ⌘ **Z** to undo the last move.

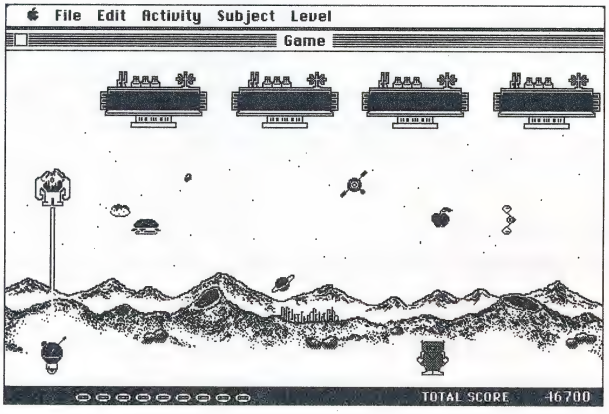


Coins are earned as equations are made. Each coins is worth 10 points in Round 1. Each coin's value increases by 10 points in each round—up to 100 points in Round 10. If you successfully complete Rounds 1–10, you may print a certificate.

Activity 4 – Math Blaster

In this arcade-style math game, a math problem appears on the screen and different answers appear in four space stations above the planet. The object is to get the Blasternaut to the space station containing the correct answer in time, and without being hit by any flying objects. (If he's hit, he loses power.) Watch out! Trash aliens are trying to land on the planet to spread their litter. If they reach Spot, time is up and the correct answer flashes on the screen.

Math Blaster Game

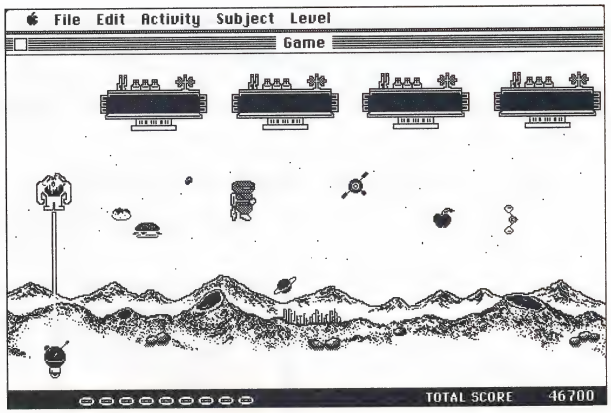


- Click a skill level – **Beginner** or **Advanced**.
- The Blasternaut moves when the mouse is moved.
- To make him fly, click the mouse button.

*The game is set to use the mouse. If you wish to use the keyboard, press ⌘**O** to change the option. Using the keyboard, press ← or → to move the Blasternaut, and **<Space>** to make him fly.*

Bonus Round – After each phase, various food items appear on-screen. The Blasternaut flies through space collecting food and bonus points. The bonus round lasts until the alien reaches Spot; then regular game play continues. There is no bonus round at the Beginner level of play.

Bonus Round



Scoring is as follows: Phase 1 = 1000 points for each correct answer; Phase 2 = 2000 points; Phase 3 = 3000 points; Phase 4 = 4000 points; Phase 5 = 5000 points. Players with the top ten scores appear on the high score list.

USING RECORD KEEPING

Records may be viewed on-screen or printed out to help parents and teachers evaluate a student's progress and diagnose a need for further practice.

- Create a new folder on the hard drive or floppy disk and name it **records**.
- Start the program and sign in.
- Select **Record Keeping** from the Main screen's File menu. A ✓ in front of Record Keeping on the File menu indicates that it is on.

When New Student is selected, Record Keeping automatically turns off.

Creating a New Record File

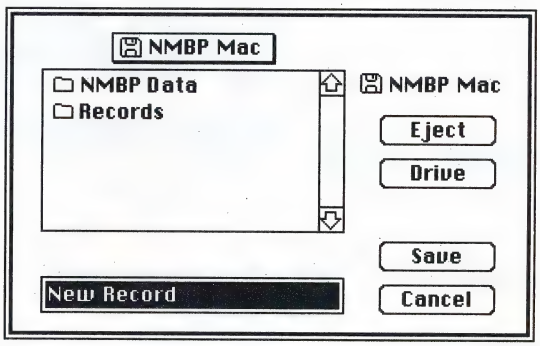
To create a new record on a hard drive:

- Click **Create new record file**; click **OK**. The contents of the *New Math Blaster Plus* folder will be displayed.
- Double-click to open the **records** folder.
- Type a name for the record and click **Save**.

To create a new record on a floppy disk:

- Click **Create new record file**; click **OK**.
- Put the records disk in the drive. The contents of the disk will be displayed.
- Double-click to open the **records** folder.
- Type a name for your new record and click **Save**.

File Requestor Box



Opening an Existing Record File

To open an existing record from a hard drive:

- Click **Open existing record file**; click **OK**. The contents of the *New Math Blaster Plus* folder will be displayed.
- Double-click to open the **records** folder.
- Double-click to open a record.

To open an existing record from a floppy disk:

- Click **Open existing record file**; click **OK**.
- Put the records disk in the drive. The contents of the disk will be displayed.
- Double-click to open the **records** folder.
- Double-click to open a record.

When an activity is completed, the program will automatically save the score.

Viewing and Printing Records

- Select **View Records** from the File menu.
- Go to the floppy disk or folder on your hard drive where your records are located.
- To view all records, click and drag the scroll bar.
- Click **Print** to print a record file.

VIEWING A LIST OF PROBLEMS (DATA FILE)

Any *New Math Blaster Plus* file (original or custom) can be viewed.

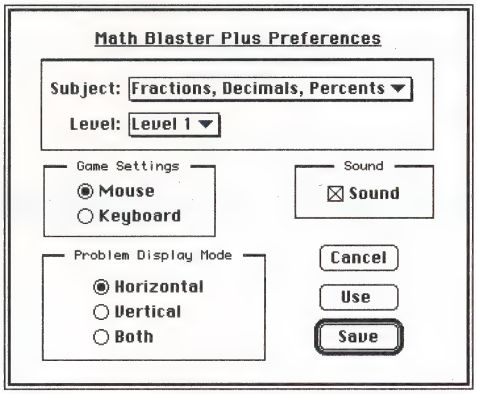
- Select the file to be viewed from the **Subject** and **Level** menus.
- Select **View Problem** from the Activity menu.
- To view all problems, click and drag the scroll bar.
- To leave the View Problem screen, click **OK**.

SETTING PREFERENCES

With this option, you can start the computer with specific menu items already selected. The computer will save your choices.

- Select **Preferences** from the Edit menu.
- When the items shown on the screen are correct, click **Save** or **Use**.

Preferences Screen



MAC EDITOR

You can create your own files of problems to use with three *New Math Blaster Plus* activities—Rocket Launcher, Trash Zapper, and Math Blaster.

- Create a new folder on the hard drive or floppy disk and name it **custom data**.
- Start the program and sign in.
- Select **Editor** from the Main screen's File menu.

CREATING A CUSTOM DATA FILE

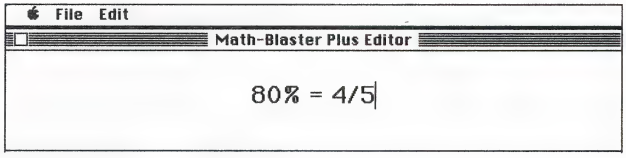
You may create a custom data file containing up to 40 math problems. Follow these guidelines when typing your problems:

- ✓ Separate numbers and signs with spaces; for example: **2 + 4 = 6** or **1 + 3/4 = 1 3/4**. (Do not use spaces around a fraction bar.)
- ✓ The maximum length for a problem is 15 characters and spaces.
- ✓ Use only these symbols when typing a problem:

+	(plus) for addition	%	(percent) for percent sign
–	(hyphen) for subtraction	.	(period) for decimal point
:	(colon) for division	/	(slash) for fractions
x	(lower case) for multiplication		

STEP ONE – Type a problem with its correct answer in the large window at the top of the Editor screen. When you finish, click the **Set Prompts** button at the bottom of the Editor screen.

Top Portion of Editor Screen



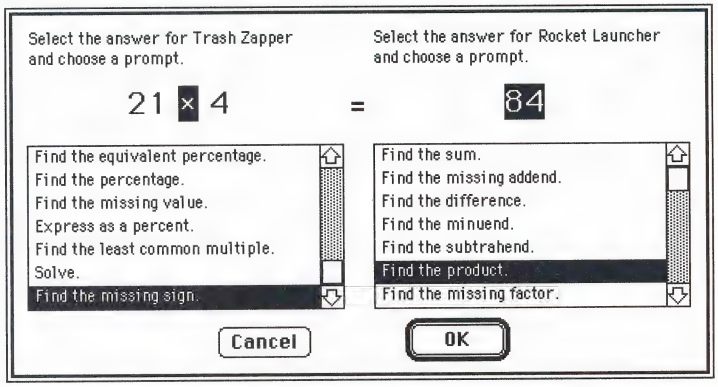
STEP TWO – Mark the correct answer and directions for Rocket Launcher.

- Click and drag to highlight a number or sign on the right side of the equal sign.
- Click ⬆ or ⬇ to find the desired directions.
- Click to highlight your choice.

STEP THREE – Mark the correct answer and directions for Trash Zapper.

- Click and drag to highlight a number or sign on the left side of the equal sign.
- Click ⬆ or ⬇ to find the desired directions.
- Click to highlight your choice.
- Click **OK** to return to the edit screen.

Set Prompts Screen



STEP FOUR – Add more problems.

- Press ⌘**A** to add the next problem.
- Repeat Steps 1–3 to enter a new problem completely.

STEP FIVE – Save your file.

- Select **Save** from the File menu.

To save a file to the hard drive:

- The contents of the *New Math Blaster Plus* folder will be displayed; double-click to open the custom data folder.
- Type a name for your file and click **Save**.

To save a file to a floppy disk:

- Put your custom data disk in the drive. The contents of the disk will be displayed.
- Type a name for your file and click **Save**.

*Use **Save** to save changes made to a data file. Use **Save As** if you wish to change the name of the file or save it to another disk or folder.*

EDITING A FILE

Once you are in the Editor, open the file you wish to change or correct.

- Select **Open** from the Editor's File menu.
- Select the name of the file to open. (Click the arrows or drag the scroll bar to view the files.) Double-click a filename to open it.
- Find the problem you wish to change. (Click the arrows or drag the scroll bar to view the problems.) Click to highlight the problem to be changed.
- Follow Steps 1–3 under "Creating a Custom Data File."
- Be sure to save the changes you have made to your file.

A problem can be deleted from a file.

- Find the problem to be deleted. Click to highlight the problem to be deleted.
- Select **Delete Problem** from the Edit menu.

PRINTING A FILE

Any *New Math Blaster Plus* file (original or custom) can be printed.

- Select the name of the file to be printed.
- Select **Print File** from the File menu.

PRINTING A TEST

Any *New Math Blaster Plus* file (original or custom) can be printed in test format. The problems can be printed in order or randomly.

- Select the name of the file to be printed.
- Select **Print Test** or **Print Random Test** from the File menu.
- Type in the information to appear beneath the name.

USING YOUR NEW FILE WITH *NEW MATH BLASTER PLUS*

To use your new custom data file with the Rocket Launcher, Trash Zapper, and Math Blaster activities, follow these steps:

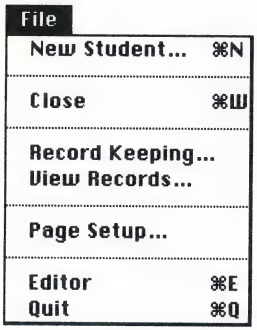
- If you are in the Editor, select ***New Math Blaster Plus*** from the File menu to return to the program's Main screen.
- Select **Your Data** from the Subject menu.

> To open a file from the hard drive:
>
> - The contents of the *New Math Blaster Plus* folders will be displayed.
> - Double-click to open the custom data folder.
> - Double-click to open a custom data file.
>
> To open a file from a floppy disk:
>
> - Put your custom data disk in the drive. The contents of the disk will be displayed.
> - Double-click to open the custom data folder.
> - Double-click to open a custom data file.

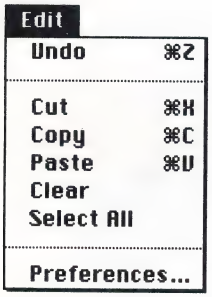
- Double-click one of the three activity icons mentioned above.

MAIN SCREEN MENUS

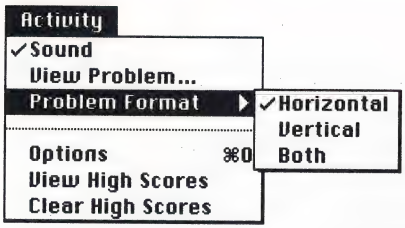
About – about the authors
Help – on-screen instructions



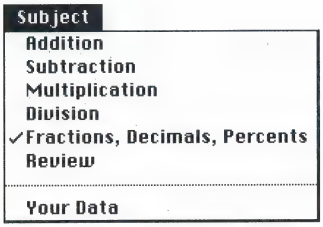
File
New Student – change student
Close – close activity
Record Keeping – turn on/off
View Records – view student's scores
Page Setup – set up page for printing
Editor – enter new math problems
Quit – exit the program



Edit
Undo – reverse last action
Cut – remove to clipboard
Copy – duplicate in memory
Paste – place cut or copied data
Clear – cancel
Select All – select all items
Preferences – save menu selections



Activity
Sound – turn on/off
View Problem – see list of problems in a chosen subject and level
Problem Format – problems in horizontal, vertical, or combined format
Options – change within an activity
View High Scores – view high game scores
Clear High Scores – erase high game scores

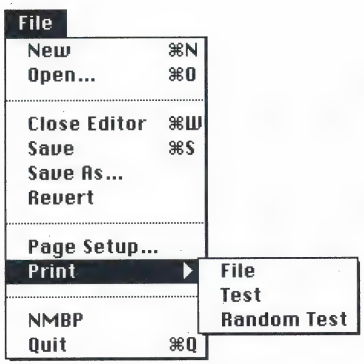


Subject
These are the subjects available in the *New Math Blaster Plus* program.

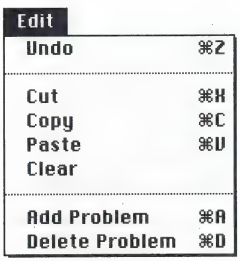
Your Data – use a custom data file

Level
Level 1 difficulty levels
Level 2 of problems in
Level 3 each subject area
Level 4 (see Appendix A)
Level 5
Level 6

EDITOR MENUS



File
New – create a new file
Open – open an existing file
Close Editor – close an existing file
Save – save a file
Save As – rename and save a file
Revert – go back to the last saved file
Page Setup – set up page for printing
Print – print a complete file
NMBP – return to main program
Quit – leave the program



Edit
Undo – reverse last action
Cut – remove to clipboard
Copy – duplicate in memory
Paste – place cut or copied data
Clear – cancel
Add Problem – add a problem
Delete Problem – delete an entire problem

WINDOWS VERSION  47

You must use the **Windows version** of *New Math Blaster Plus* to run it under Windows on an IBM, Tandy, or other MS-DOS compatible computer with:

- ✓ Windows 3.0 or higher (Standard or Enhanced mode)
- ✓ an 80286 processor with 2mb of memory
- ✓ EGA or VGA graphics
- ✓ a hard drive with a 5.25", 1.2-mb floppy drive or 3.5", 720K floppy drive
- ✓ a mouse (recommended); a printer (optional)

INSTALLING *NEW MATH BLASTER PLUS* ON A HARD DISK

- Start Windows as usual.
- Insert the *New Math Blaster Plus* program disk into drive A (or drive B).
- Select the **Run...** command from the Program Manager File menu.
- Type **A:\SETUP** and press ENTER. If you put the program disk into drive B, type **B:\SETUP** and press ENTER. A dialog box will appear.
- Press ENTER to accept the destination default displayed, or select **Set Location** and type the drive and path where you want *New Math Blaster Plus* (Windows version) to be installed (e.g., D:\MBW).
- The install program will create a new program group if you are using the Windows Program Manager. If you are using a shell program other than the Windows Program Manager, consult that documentation for information on how to access new programs.

MOVING AROUND IN THE PROGRAM

Features of the Windows interface such as how to use the mouse, menu bar, scroll bar, and keyboard alternatives are briefly explained here and in the program's Help file. If you need additional help, please refer to the Windows Help file or your Windows manual.

Using a Mouse to Make Selections:

Click – Press the mouse button and quickly release.
Double-click – Press and release the mouse button twice in quick succession without moving the mouse.
Click and Drag – Press and hold the mouse button. Drag the pointer to highlight text or to move special characters. Release the mouse button when you arrive at the desired location.

From Menus

Menu titles are at the top of the screen.

- Move the pointer to a menu title. Click and drag until the item you wish is highlighted. Release the mouse button to select the item.

On the Screen

- On the Main screen, each activity is represented by an icon (a picture. Point and click to select an activity.
- When options or choices on the screen are outlined or boxed, point and click the box of your choice; click the OK button to continue.
- The scroll bar is a rectangular bar along the right side or bottom of the window. Click and drag in the scroll bar to view the off-screen portion of the document.
- Pressing ENTER is an alternative to clicking OK.

If a menu item is grayed or dimmed, you cannot select it at that time. Some menu items are available only from the Main screen; some are available only during certain activities.

Using a Keyboard to Make Selections:

From Menus

Menu titles are located on the menu bar at the top of the screen. Menu titles and some menu items have a letter underlined.

- To access a menu, press ALT and the indicated letter key at the same time. (For example, to access the **File** menu, press **ALT** and **F**.)

- Move between menus with LEFT or RIGHT ARROW; use ALT to close a menu.
- To select a menu item, press the indicated letter key when the menu is open, or use UP or DOWN ARROW to highlight the item, then press ENTER.

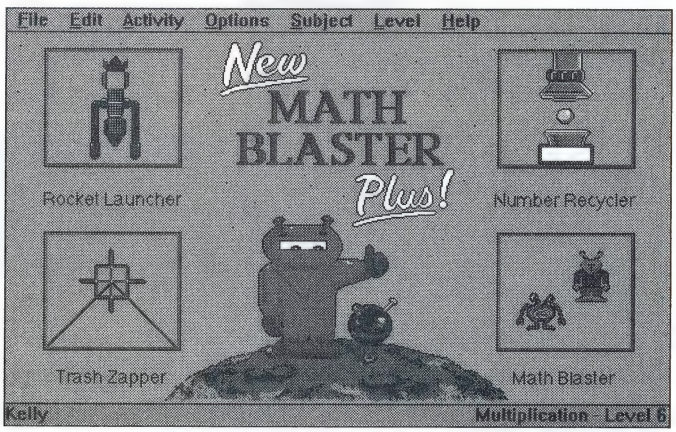
On the Screen

- On the Main screen, press TAB to move the highlighted border; press ENTER to select (or select from the Activity menu).
- For outlined or boxed choices, use the ARROW keys to scroll or move within a box; TAB between boxes, then press ENTER to select choices.
- The BACKSPACE key can be used to erase during an activity.
- The scroll bar is a rectangular bar along the right side or bottom of the window. Use arrow keys to move along the scroll bar and view the off-screen portion of the document.

STARTING THE PROGRAM AND SIGNING IN

- To run the program, double-click the *Math Blaster* icon or use the ARROW keys to select it and press ENTER.
- A sign-in box will appear. Enter your name (up to 18 characters) in the box. Press ENTER or click OK.

Main Screen



SELECTING A SUBJECT, LEVEL, AND FORMAT

At the Main screen, select a subject, level, and problem display format.

- From the **Subject** menu, select a subject: Addition; Subtraction; Multiplication; Division; Fractions, Decimals, and Percents; or Review.
- From the **Level** menu, select one of the six difficulty levels.
- From the **Options** menu, choose a problem format: Horizontal, Vertical, or Both.

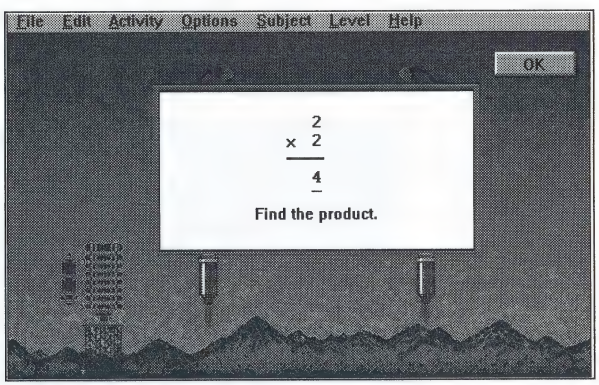
You may select a printer and printer options from the Main screen.

- From the File menu, select **Printer Setup**.
- Make your selections from the dialog box that appears.

USING THE ACTIVITIES

Select an activity by clicking its icon on the Main screen, or by selecting it from the Activity menu. For on-screen help at any time, press ALT, H or click the **Help** menu.

Rocket Launcher Screen



Activity 1 – Rocket Launcher

The focus of Rocket Launcher is to reinforce math facts. Choose an option—**Study the problems** or **Solve the problems**. (The option can be changed any time during the activity by selecting **Choices** from the Options menu.)

The **Study** option allows you to preview an equation before solving it.

- Study the problem that appears on the screen.
- Press ENTER or click OK to make the answer disappear.
- Type the answer into the equation; press ENTER or click OK.

The **Solve** option challenges you to solve an equation without help.

- Type the answer into the equation; press ENTER or click OK.

As you solve problems, a rocket is gradually assembled on the launch pad. When all problems have been answered correctly and the rocket is built, the Blasternaut gets into the rocket and blasts off.

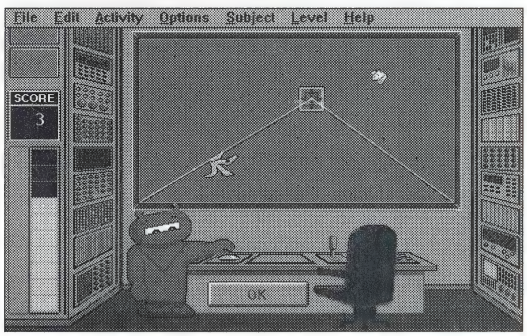
After two incorrect tries, the correct answer will appear. The rocket will blast off only after all the problems are answered correctly. The player can retake the missed problems in order to get 100%.

Activity 2 – Trash Zapper

The goal of Trash Zapper is to find a missing value in an equation.

- Type the missing number in the equation; press ENTER or click OK. After two incorrect tries, the correct answer will appear.

After five problems, the student gets a chance to help the Blasternaut clean up litter from the the space environment. Two zaps are awarded for each of the student's correct answers.



Trash Zapper Game

The zap ray can be aimed and fired with either keyboard or mouse. To change options before or during the activity, select **Choices** from the Options menu. When using the mouse, make sure the pointer stays inside the game window.

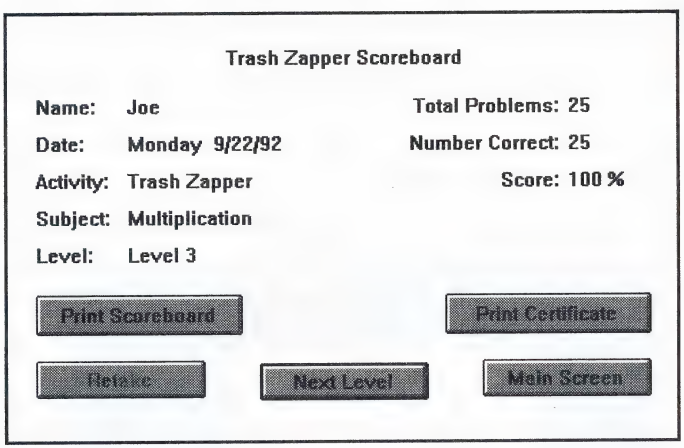
- Use the ARROW keys or the mouse to aim the laser scope at the trash.
- Press ENTER or the SPACEBAR or click the mouse to zap the floating litter from space.

Scoreboard for Activities 1 and 2

A scoreboard will be displayed at the end of each of these two activities.

- Select an option to continue.

Scoreboard



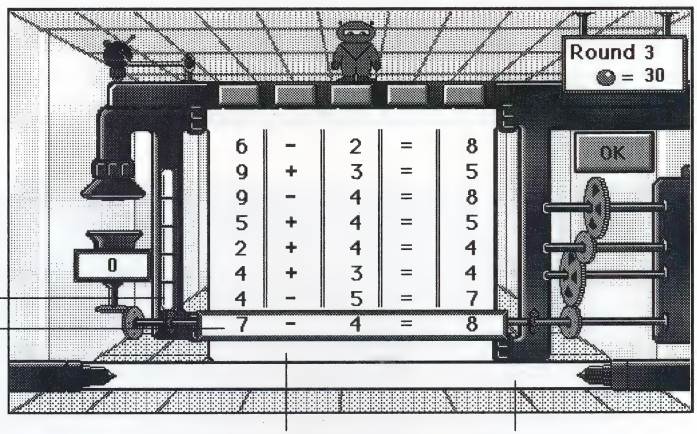
Printing Options: The scoreboard may be printed. The printing option for the certificate is available only if the student earned 100% by getting problems right on the first try.

Other Options: Students can retake missed problems, go on to the next level of difficulty, or return to the Main screen to select another activity. If Record Keeping is turned on, the score is saved. (See "Using Record Keeping" beginning on page 55.)

Activity 3 – Number Recycler

The Number Recycler is designed to build critical thinking skills. In this game you take risks, analyze number combinations, and make decisions. The object of the activity is to gain points and get to the next round by forming the required number of equations. You help the Blasternaut create equations contained within the recycling machine.

- When the option box appears, select a subject and a round. (The subject or the round can be changed at any time during the activity by selecting **Choices** from the Options menu. The Subject menu and Level menu are not used with this activity.)



- Move the Blasternaut to a column by clicking the button at the top of the column, or by pressing the LEFT or RIGHT ARROW key.
- Click the button again or press the DOWN ARROW key to push the numbers or symbols down in the column.
- Click OK or press ENTER when a correct equation appears in the window.

When a number or a symbol is pushed down into the recycling chamber, it will be reused. If a number or a symbol is pushed below the recycling chamber into the zap chamber, it will be zapped and disappear.

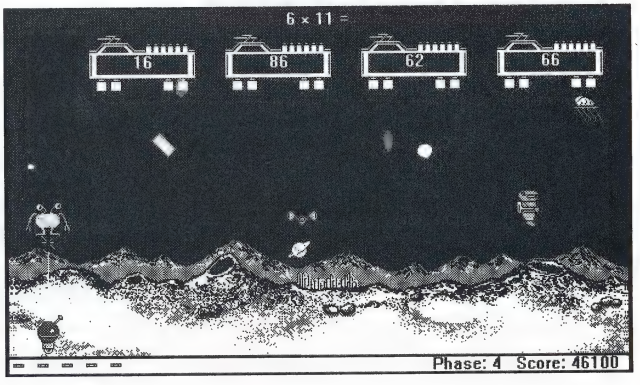
- Select **Undo** from the Edit menu to undo the last move.

Coins are earned as equations are made. Each coin is worth 10 points in Round 1. Each coin's value increases by 10 points in each round—up to 100 points in Round 10. If you successfully complete Rounds 1–10, you may print a certificate.

Activity 4 – Math Blaster

In this arcade-style game, a math problem appears on the screen and answer choices appear in four space stations above the planet. Make the Blasternaut fly to the correct space station without being hit by any flying space objects. Watch out! Trash aliens are trying to land on the planet to spread litter. If they reach Spot, time is up and the correct answer flashes on-screen.

- Select a skill level—**Beginner** or **Advanced**.



Math Blaster Game

You can make the Blasternaut move and fly with either keyboard or mouse. (To change options, select **Choices** from the Options menu.)

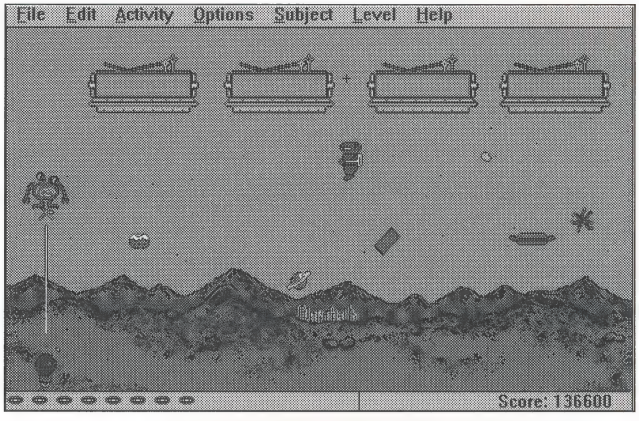
Move the Blasternaut with the LEFT and RIGHT ARROW keys. To make him fly, press the UP ARROW key or the SPACEBAR. (He flies better if the keys are tapped lightly.)

The Blasternaut follows the mouse cursor left and right. To make him fly, click the mouse repeatedly. Make sure the mouse pointer stays inside the game window.

Game Scoring – 1000 points are awarded for each correct answer in Round 1, increasing by 1000 points per round to 10,000 points for each correct answer in round 10. The names of players with the top ten scores appear on the high score list. One of the Blasternaut symbols at the bottom of the screen will disappear each time he runs into a flying space object. Heads are added as you earn more points. If you run out of heads, the game ends.

Bonus rounds will occur from time to time. Various food items appear on-screen. The Blasternaut flies through space collecting food and bonus points. The bonus round lasts until the alien reaches Spot; then regular game play continues. There is no bonus round at the Beginner level of play.

Bonus Round



USING RECORD KEEPING

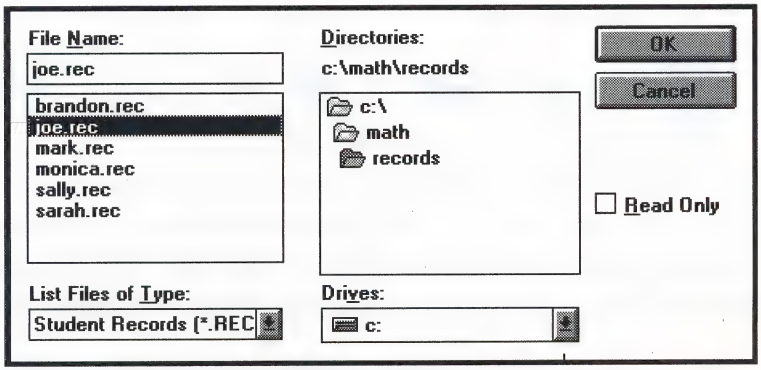
To turn on Record Keeping:

- Select **Record Keeping** from the File menu on the Main screen. (A ✓ in front of the menu item signifies that it is on.) A dialog box will appear.
- To use an already created and saved file, choose **Open existing record file**. (If your record file is on a floppy disk, insert it now.)

If you wish to create a new records file:

- Select **Create new record file** from the dialog box that appears. The File Requestor Box will appear with a filename and path selected. (The install program created a subdirectory called **\records** for you.)
- To accept this default path, select OK.

File Requestor Box



Changing Defaults in the File Requestor Box

To change the default filename:

- Type a new name (8 characters or less) in the **File Name** box. The extension **.rec** will be added automatically. Press ENTER or click OK.

To save to a hard disk, but change the pathname:

- Highlight the letter of the chosen drive in the **Drives** box. A list of directories will appear.
- Highlight a directory name. A list of subdirectories will appear. Highlight the subdirectory of your choice.
- When all information is correct, press ENTER or click OK.

To save records to a floppy disk:

- Insert a floppy disk, formatted with DOS 3.0 or higher, in drive A or B.
- Highlight that drive in the **Drives** box.
- Type a name in the **File Name** box or use the default.
- Press ENTER or click OK.

Saving a Record

When a student completes an activity, the program will automatically go to the drive selected and save the record. If the record file is not found, an error message will appear on the screen. (If you are saving records on a floppy disk, be sure it is inserted in the correct drive.) If you select Cancel, the File Requestor Box will appear, giving you a chance to specify another path.

When New Student is selected, Record Keeping automatically turns off.

Viewing a Student's Record

- Select **View Records** from the File menu. The File Requestor Box will appear.
- Select a file. (If the file is on a floppy disk, be sure it is inserted.) If you used an extension other than **.rec**, be sure to select **All files (*.*)** in the **List Files of Type** box.
- Press ENTER or click OK. The first page of the record will appear.
- To scroll through other pages of the record, use the UP or DOWN ARROW key or the scroll bar.

Printing a Student's Record

- Select **View Records** from the File menu, and select the file you want to print from the File Requestor Box. (If your file is on a floppy disk, be sure it is inserted.)
- When the record file appears on-screen, click or TAB to the **Print** button and press ENTER.

Deleting a Record File

You may delete a record file using the Windows File Manager.

VIEWING A LIST OF PROBLEMS (DATA FILE)

Any *New Math Blaster Plus* file (original or custom) can be viewed.

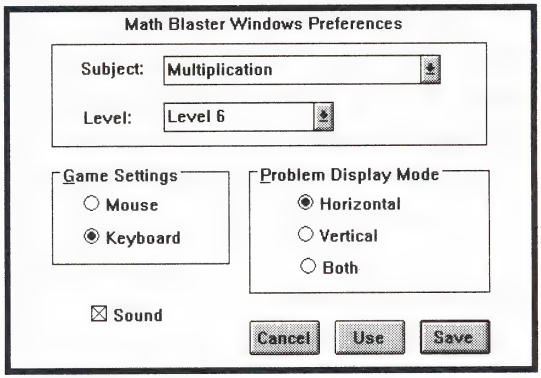
- Select the file to be viewed from the **Subject** and **Level** menus. To view custom files, select **Your Data** from the Subject menu, then select the appropriate drive and file from the File Requestor Box.
- Select **View Problems** from the Options menu. Scroll through the problems.
- To leave the View Problems screen, press ENTER or click OK.

SETTING PREFERENCES

With this option, you can start the computer with specific menu items already selected. The computer will save your choices.

- Select **Preferences** from the Main screen's Options menu.
- Select all the options you want to set; select **Save.** To use the options for this session only, select **Use**.

Preferences Screen



WINDOWS EDITOR  59

You can create your own files of problems to use with three *New Math Blaster Plus* activities—Rocket Launcher, Trash Zapper, and Math Blaster. The data files that you create can be saved on a separate disk or on your hard disk.

- Format a blank disk using DOS 3.0 or higher, or create a subdirectory on your hard disk (e.g., from DOS, type **md c:\math\newdata**).
- Select **Editor** from the Main screen's File menu.

CREATING A CUSTOM DATA FILE

You may create a custom data file containing up to 40 math problems. Follow these guidelines when typing your problems:

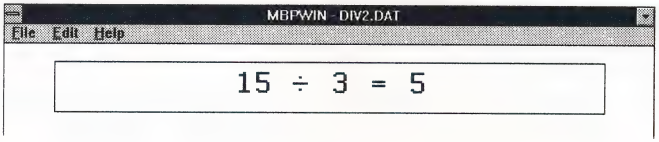
- ✓ Separate numbers and signs with spaces; for example: **2 + 4 = 6** or **1 + 3/4 = 1 3/4**. (Do not use spaces around a fraction bar.)
- ✓ Use the LEFT or RIGHT ARROW keys or the mouse to move the cursor left or right.
- ✓ Use BACKSPACE to erase characters to the left of the cursor, or click and drag the mouse over the characters and press BACKSPACE.
- ✓ The maximum length for a problem is 15 characters and spaces.
- ✓ Use only these symbols when typing a problem:

+	(plus) for addition	%	(percent) for percent sign
–	(hyphen) for subtraction	.	(period) for decimal point
:	(colon) for division	/	(slash) for fractions
x	(lower case) for multiplication		

STEP ONE

Type a problem with the correct answer. When you finish, press ENTER.

Top Portion of Editor Screen



STEP TWO

Highlight the answers for Trash Zapper and Rocket Launcher. The highlighted answers will appear in the activities as blanks to be filled in by the student. Highlight characters to the left of the equal sign for Trash Zapper and to the right of the equal sign for Rocket Launcher.

Use ARROW keys to move the pointer. Press SHIFT and an ARROW key to highlight a number or sign. Press TAB when you are ready to move between boxes, or to go to the prompt boxes below.

Click and drag to highlight a number or sign.

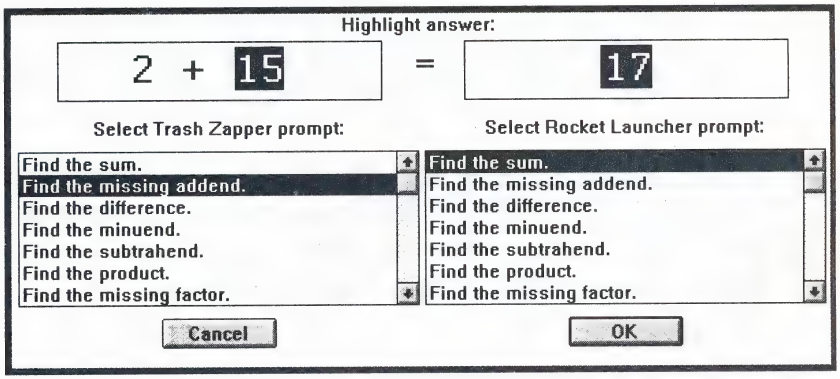
STEP THREE

Select the directions that will appear with the problems.

Trash Zapper choices are on the left, Rocket Launcher choices on the right.

- Highlight the desired directions for each activity.

Set Prompts Screen



STEP FOUR

Save your choices.

- When prompts are set for the first problem, click the OK button or TAB to the OK button and press ENTER. Your choices will be saved.

STEP FIVE

Add more problems.

- Repeat Steps 1–4 to enter a new complete problem.
- Press or click ⬆ or ⬇ to scroll through problems.

STEP SIX

Save your file.

- Select **Save** from the File menu. The File Requestor Box will appear. (If you are saving to a floppy disk, insert it now.)
- Select the drive, directory, and file type you want.
- In the File Name box, type a name (8 characters or less). **.Dat** will be added for you, or type in your own extension. Press ENTER or click OK.

Use **Save** to save changes made to a data file. Use **Save As** when you change the name of the file or save it to another disk or subdirectory.

EDITING A FILE

Once you are in the Editor, open the file you wish to change or correct.

- Select **Open** from the File menu. The File Requester Box will appear.
- Select the name of the file to open; press ENTER or click OK.
- Find the problem you wish to change; click to select it or use TAB and the UP or DOWN ARROW key to get to the problem; press ENTER.
- Place the cursor and make the change to the problem.
- Click or TAB to **Set Prompts** and press ENTER to move to Step 2.
- Follow Steps 2–4 on page 60 to edit the prompts; save your changes.

A problem can be deleted from a file.

- Find the problem to be deleted; click to select it, or TAB to the problem list box and use the UP or DOWN ARROW key to get to the problem.
- Select **Delete** from the Edit menu. The problems will be renumbered.

PRINTING

You may select printer options before you print a file, a test, or a random test.

- Select **Printer Setup** from the Main screen's or Editor's File menu.
- Select printer options from the Printer Setup screen.

Printing a File

Any *New Math Blaster Plus* file (original or custom) can be printed.

- Select **Open** from the Editor's File menu.
- Choose a filename from the File Requestor Box.
- Select **Print File** from the File menu.

Printing a Test

Problems from any data file can be printed in regular or random order.

- Select **Open** from the Editor's File menu.
- Choose a file from the File Requestor Box.
- Select **Print Test** or **Print Random Test** from the File menu.
- Type in the information to appear beneath the name. Specify a title and test directions.
- Select a display format. TAB to **Print** and press ENTER, or click OK.

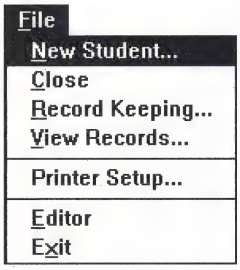
Note: Since most printers will not print a division sign, a colon (:) will be printed instead. Draw a horizontal line between the dots to create the proper sign.

USING YOUR NEW FILE WITH *NEW MATH BLASTER PLUS*

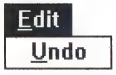
To use your new file with Rocket Launcher, Trash Zapper, and Math Blaster, follow the steps below:

- After saving the new file, exit the Editor by pulling down the **File** menu and selecting **Main Screen**.
- Select **Your Data** from the Main screen's Subject menu. The File Requestor box will appear. (If your file is on a floppy disk, be sure it is inserted in the drive.)
- Select the drive, directory, and file you want. When the filename you want appears in the File Name box, click OK or TAB to OK and press ENTER.
- Select the activity of your choice.

MAIN SCREEN MENUS

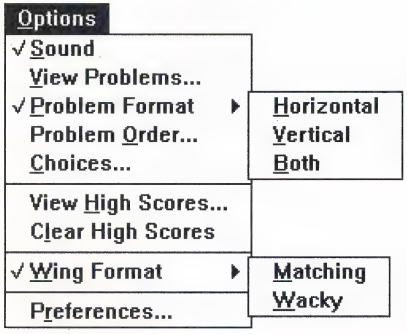


File
New Student – change student
Close – close activity
Record Keeping – turn on/off
View Records – view student's scores
Printer Setup – select printing options
Editor – enter new math problems
Exit – quit the program

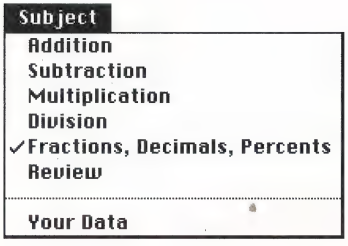


Edit
Undo – undo a move in Number Recycler

Activity
Rocket Launcher
Trash Zapper
Number Recycler
Math Blaster
select one of the four activities



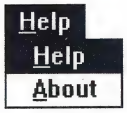
Options
Sound – turn on/off
View Problems – view a data file
Problem Format – choose type of display
Problem Order – choose file order or random
Choices – options for using activities
View High Scores – show list of game winners
Clear High Scores – remove list of winners
Wing Format – for rockets in Rocket Launcher
Preferences – set menu choices



Subject
These are the subjects available in the New Math Blaster Plus program.

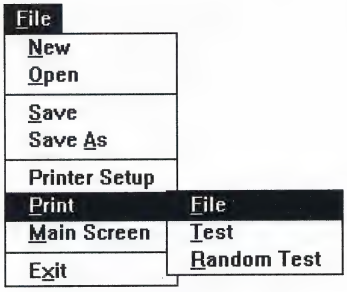
Your Data – use a custom data file

Level
Level 1 difficulty levels
Level 2 of problems in
Level 3 each subject area
Level 4 (see Appendix A)
Level 5
Level 6



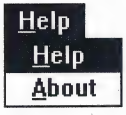
Help
Help – on-screen help
About – about the program and authors

EDITOR MENUS



File
New – create a new file
Open – open an existing file
Save – save a file
Save As – rename and save a file
Printer Setup – select printing options
Print – print a file, test, or random test
Main Screen – return to main program screen
Exit – leave the program

Edit
Add – add a problem
Delete – delete an entire problem



Help
Help – on-screen help
About – about the Editor and authors

APPENDIX A – MATH FACTS

ADDITION LEVEL 1
Sums, 2–9

1	+	1	=	2
2	+	0	=	2
2	+	1	=	3
3	+	0	=	3
3	+	1	=	4
2	+	2	=	4
4	+	0	=	4
4	+	1	=	5
3	+	2	=	5
5	+	0	=	5
5	+	1	=	6
4	+	2	=	6
3	+	3	=	6
6	+	1	=	7
5	+	2	=	7
4	+	3	=	7
7	+	1	=	8
6	+	2	=	8
5	+	3	=	8
4	+	4	=	8
8	+	1	=	9
7	+	2	=	9
6	+	3	=	9
5	+	4	=	9
9	+	0	=	9

ADDITION LEVEL 2
Sums, 10–14

9	+	1	=	10
8	+	2	=	10
7	+	3	=	10
6	+	4	=	10
5	+	6	=	11
10	+	1	=	11
9	+	2	=	11
8	+	3	=	11
7	+	4	=	11
6	+	5	=	11
10	+	2	=	12
9	+	3	=	12
8	+	4	=	12
7	+	5	=	12
6	+	6	=	12
11	+	2	=	13
10	+	3	=	13
9	+	4	=	13
8	+	5	=	13
7	+	6	=	13
11	+	3	=	14
10	+	4	=	14
9	+	5	=	14
8	+	6	=	14
7	+	7	=	14

ADDITION LEVEL 3
Sums, 15–18

13	+	2	=	15
12	+	3	=	15
11	+	4	=	15
10	+	5	=	15
9	+	6	=	15
8	+	7	=	15
14	+	2	=	16
13	+	3	=	16
12	+	4	=	16
11	+	5	=	16
10	+	6	=	16
9	+	7	=	16
8	+	8	=	16
14	+	3	=	17
13	+	4	=	17
12	+	5	=	17
11	+	6	=	17
10	+	7	=	17
9	+	8	=	17
14	+	4	=	18
13	+	5	=	18
12	+	6	=	18
11	+	7	=	18
10	+	8	=	18
9	+	9	=	18

ADDITION LEVEL 4
Sums, 20–100 (by 10s)

10	+	10	=	20
20	+	10	=	30
30	+	10	=	40
20	+	20	=	40
40	+	10	=	50
30	+	20	=	50
50	+	10	=	60
40	+	20	=	60
30	+	30	=	60
60	+	10	=	70
50	+	20	=	70
40	+	30	=	70
70	+	10	=	80
60	+	20	=	80
50	+	30	=	80
40	+	40	=	80
80	+	10	=	90
70	+	20	=	90
60	+	30	=	90
50	+	40	=	90
90	+	10	=	100
80	+	20	=	100
70	+	30	=	100
60	+	40	=	100
50	+	50	=	100

ADDITION LEVEL 5
Sums, 19–22

10	+	9	=	19
11	+	8	=	19
12	+	7	=	19
13	+	6	=	19
14	+	5	=	19
11	+	9	=	20
12	+	8	=	20
13	+	7	=	20
14	+	6	=	20
15	+	5	=	20
11	+	10	=	21
12	+	9	=	21
13	+	8	=	21
14	+	7	=	21
15	+	6	=	21
16	+	5	=	21
17	+	4	=	21
11	+	11	=	22
12	+	10	=	22
13	+	9	=	22
14	+	8	=	22
15	+	7	=	22
16	+	6	=	22
17	+	5	=	22
18	+	4	=	22

ADDITION LEVEL 6
Sums, 23–25

10	+	13	=	23
11	+	12	=	23
12	+	11	=	23
13	+	10	=	23
14	+	9	=	23
15	+	8	=	23
16	+	7	=	23
17	+	6	=	23
18	+	5	=	23
11	+	13	=	24
12	+	12	=	24
13	+	11	=	24
14	+	10	=	24
15	+	9	=	24
16	+	8	=	24
17	+	7	=	24
18	+	6	=	24
11	+	14	=	25
12	+	13	=	25
13	+	12	=	25
14	+	11	=	25
15	+	10	=	25
16	+	9	=	25
17	+	8	=	25
18	+	7	=	25

SUBTRACTION LEVEL 1
Minuends, 8–10
Subtrahends, 0–9

8	– 1	=	7
8	– 2	=	6
8	– 3	=	5
8	– 4	=	4
8	– 5	=	3
8	– 6	=	2
8	– 7	=	1
9	– 1	=	8
9	– 2	=	7
9	– 3	=	6
9	– 4	=	5
9	– 5	=	4
9	– 6	=	3
9	– 7	=	2
9	– 8	=	1
10	– 0	=	10
10	– 1	=	9
10	– 2	=	8
10	– 3	=	7
10	– 4	=	6
10	– 5	=	5
10	– 6	=	4
10	– 7	=	3
10	– 8	=	2
10	– 9	=	1

SUBTRACTION LEVEL 2
Minuends, 11–15
Subtrahends, 1–5

11	– 1	=	10
11	– 2	=	9
11	– 3	=	8
11	– 4	=	7
11	– 5	=	6
12	– 1	=	11
12	– 2	=	10
12	– 3	=	9
12	– 4	=	8
12	– 5	=	7
13	– 1	=	12
13	– 2	=	11
13	– 3	=	10
13	– 4	=	9
13	– 5	=	8
14	– 1	=	13
14	– 2	=	12
14	– 3	=	11
14	– 4	=	10
14	– 5	=	9
15	– 1	=	14
15	– 2	=	13
15	– 3	=	12
15	– 4	=	11
15	– 5	=	10

SUBTRACTION LEVEL 3
Minuends, 11–15
Subtrahends, 6–10

11	– 6	=	5
11	– 7	=	4
11	– 8	=	3
11	– 9	=	2
11	– 10	=	1
12	– 6	=	6
12	– 7	=	5
12	– 8	=	4
12	– 9	=	3
12	– 10	=	2
13	– 6	=	7
13	– 7	=	6
13	– 8	=	5
13	– 9	=	4
14	– 6	=	8
14	– 7	=	7
14	– 8	=	6
14	– 9	=	5
14	– 10	=	4
15	– 6	=	9
15	– 7	=	8
15	– 8	=	7
15	– 9	=	6
15	– 10	=	5

SUBTRACTION LEVEL 4
Minuends, 60–100
Subtrahends, 20–80

60	– 40	=	20
60	– 30	=	30
60	– 20	=	40
70	– 50	=	20
70	– 40	=	30
70	– 30	=	40
70	– 20	=	50
80	– 60	=	20
80	– 50	=	30
80	– 40	=	40
80	– 30	=	50
80	– 20	=	60
90	– 70	=	20
90	– 60	=	30
90	– 50	=	40
90	– 40	=	50
90	– 30	=	60
90	– 20	=	70
100	– 80	=	20
100	– 70	=	30
100	– 60	=	40
100	– 50	=	50
100	– 40	=	60
100	– 30	=	70
100	– 20	=	80

SUBTRACTION LEVEL 5
Minuends, 16–20
Subtrahends, 0–4

16	– 0	=	16
16	– 1	=	15
16	– 2	=	14
16	– 3	=	13
16	– 4	=	12
17	– 0	=	17
17	– 1	=	16
17	– 2	=	15
17	– 3	=	14
17	– 4	=	13
18	– 0	=	18
18	– 1	=	17
18	– 2	=	16
18	– 3	=	15
18	– 4	=	14
19	– 0	=	19
19	– 1	=	18
19	– 2	=	17
19	– 3	=	16
19	– 4	=	15
20	– 0	=	20
20	– 1	=	19
20	– 2	=	18
20	– 3	=	17
20	– 4	=	16

SUBTRACTION LEVEL 6
Minuends, 15–20
Subtrahends, 5–9

15	– 5	=	10
15	– 6	=	9
15	– 7	=	8
15	– 8	=	7
15	– 9	=	6
16	– 5	=	11
16	– 6	=	10
16	– 7	=	9
16	– 8	=	8
16	– 9	=	7
17	– 5	=	12
17	– 7	=	10
17	– 9	=	8
18	– 5	=	13
18	– 6	=	12
18	– 7	=	11
18	– 8	=	10
18	– 9	=	9
19	– 5	=	14
19	– 6	=	13
19	– 7	=	12
19	– 8	=	11
20	– 5	=	15
20	– 6	=	14
20	– 7	=	13
20	– 8	=	12
20	– 9	=	11

MULTIPLICATION LEVEL 1
Multipliers of 1 and 2

1	x	0	=	0
1	x	1	=	1
1	x	2	=	2
1	x	3	=	3
1	x	4	=	4
1	x	5	=	5
1	x	6	=	6
1	x	7	=	7
1	x	8	=	8
1	x	9	=	9
1	x	10	=	10
2	x	0	=	0
2	x	1	=	2
2	x	2	=	4
2	x	3	=	6
2	x	4	=	8
2	x	5	=	10
2	x	6	=	12
2	x	7	=	14
2	x	8	=	16
2	x	9	=	18
2	x	10	=	20

MULTIPLICATION LEVEL 2
Multipliers of 3 and 4

3	x	0	=	0
3	x	1	=	3
3	x	2	=	6
3	x	3	=	9
3	x	4	=	12
3	x	5	=	15
3	x	6	=	18
3	x	7	=	21
3	x	8	=	24
3	x	9	=	27
3	x	10	=	30
3	x	11	=	33
3	x	12	=	36
4	x	0	=	0
4	x	1	=	4
4	x	2	=	8
4	x	3	=	12
4	x	4	=	16
4	x	5	=	20
4	x	6	=	24
4	x	7	=	28
4	x	8	=	32
4	x	9	=	36
4	x	10	=	40
4	x	11	=	44
4	x	12	=	48

MULTIPLICATION LEVEL 3
Multipliers of 5 and 6

5	x	0	=	0
5	x	1	=	5
5	x	2	=	10
5	x	3	=	15
5	x	4	=	20
5	x	5	=	25
5	x	6	=	30
5	x	7	=	35
5	x	8	=	40
5	x	9	=	45
5	x	10	=	50
5	x	11	=	55
5	x	12	=	60
6	x	0	=	0
6	x	1	=	6
6	x	2	=	12
6	x	3	=	18
6	x	4	=	24
6	x	5	=	30
6	x	6	=	36
6	x	7	=	42
6	x	8	=	48
6	x	9	=	54
6	x	10	=	60
6	x	11	=	66
6	x	12	=	72

MULTIPLICATION LEVEL 4
Multipliers of 7 and 8

7	x	0	=	0
7	x	1	=	7
7	x	2	=	14
7	x	3	=	21
7	x	4	=	28
7	x	5	=	35
7	x	6	=	42
7	x	7	=	49
7	x	8	=	56
7	x	9	=	63
7	x	10	=	70
7	x	11	=	77
7	x	12	=	84
8	x	0	=	0
8	x	1	=	8
8	x	2	=	16
8	x	3	=	24
8	x	4	=	32
8	x	5	=	40
8	x	6	=	48
8	x	7	=	56
8	x	8	=	64
8	x	9	=	72
8	x	10	=	80
8	x	11	=	88
8	x	12	=	96

MULTIPLICATION LEVEL 5
Multipliers of 9 and 10

9	x	0	=	0
9	x	1	=	9
9	x	2	=	18
9	x	3	=	27
9	x	4	=	36
9	x	5	=	45
9	x	6	=	54
9	x	7	=	63
9	x	8	=	72
9	x	9	=	81
9	x	10	=	90
9	x	11	=	99
9	x	12	=	108
10	x	0	=	0
10	x	1	=	10
10	x	2	=	20
10	x	3	=	30
10	x	4	=	40
10	x	5	=	50
10	x	6	=	60
10	x	7	=	70
10	x	8	=	80
10	x	9	=	90
10	x	10	=	100
10	x	11	=	110
10	x	12	=	120

MULTIPLICATION LEVEL 6
Multipliers of 11 and 12

11	x	0	=	0
11	x	1	=	11
11	x	2	=	22
11	x	3	=	33
11	x	4	=	44
11	x	5	=	55
11	x	6	=	66
11	x	7	=	77
11	x	8	=	88
11	x	9	=	99
11	x	10	=	110
11	x	11	=	121
11	x	12	=	132
12	x	0	=	0
12	x	1	=	12
12	x	2	=	24
12	x	3	=	36
12	x	4	=	48
12	x	5	=	60
12	x	6	=	72
12	x	7	=	84
12	x	8	=	96
12	x	9	=	108
12	x	10	=	120
12	x	11	=	132
12	x	12	=	144

DIVISION LEVEL 1
Divisors of 1 and 2

0	÷	1	=	0
1	÷	1	=	1
2	÷	1	=	2
3	÷	1	=	3
4	÷	1	=	4
5	÷	1	=	5
6	÷	1	=	6
7	÷	1	=	7
8	÷	1	=	8
9	÷	1	=	9
10	÷	1	=	10
0	÷	2	=	0
2	÷	2	=	1
4	÷	2	=	2
6	÷	2	=	3
8	÷	2	=	4
10	÷	2	=	5
12	÷	2	=	6
14	÷	2	=	7
16	÷	2	=	8
18	÷	2	=	9
20	÷	2	=	10

DIVISION LEVEL 2
Divisors of 3 and 4

0	÷	3	=	0
3	÷	3	=	1
6	÷	3	=	2
9	÷	3	=	3
12	÷	3	=	4
15	÷	3	=	5
18	÷	3	=	6
21	÷	3	=	7
24	÷	3	=	8
27	÷	3	=	9
30	÷	3	=	10
33	÷	3	=	11
36	÷	3	=	12
0	÷	4	=	0
4	÷	4	=	1
8	÷	4	=	2
12	÷	4	=	3
16	÷	4	=	4
20	÷	4	=	5
24	÷	4	=	6
28	÷	4	=	7
32	÷	4	=	8
36	÷	4	=	9
40	÷	4	=	10
44	÷	4	=	11
48	÷	4	=	12

DIVISION LEVEL 3
Divisors of 5 and 6

0	÷	5	=	0
5	÷	5	=	1
10	÷	5	=	2
15	÷	5	=	3
20	÷	5	=	4
25	÷	5	=	5
30	÷	5	=	6
35	÷	5	=	7
40	÷	5	=	8
45	÷	5	=	9
50	÷	5	=	10
55	÷	5	=	11
60	÷	5	=	12
0	÷	6	=	0
6	÷	6	=	1
12	÷	6	=	2
18	÷	6	=	3
24	÷	6	=	4
30	÷	6	=	5
36	÷	6	=	6
42	÷	6	=	7
48	÷	6	=	8
54	÷	6	=	9
60	÷	6	=	10
66	÷	6	=	11
72	÷	6	=	12

DIVISION LEVEL 4
Divisors of 7 and 8

0	÷	7	=	0
7	÷	7	=	1
14	÷	7	=	2
21	÷	7	=	3
28	÷	7	=	4
35	÷	7	=	5
42	÷	7	=	6
49	÷	7	=	7
56	÷	7	=	8
63	÷	7	=	9
70	÷	7	=	10
77	÷	7	=	11
84	÷	7	=	12
0	÷	8	=	0
8	÷	8	=	1
16	÷	8	=	2
24	÷	8	=	3
32	÷	8	=	4
40	÷	8	=	5
48	÷	8	=	6
56	÷	8	=	7
64	÷	8	=	8
72	÷	8	=	9
80	÷	8	=	10
88	÷	8	=	11
96	÷	8	=	12

DIVISION LEVEL 5
Divisors of 9 and 10

0	÷	9	=	0
9	÷	9	=	1
18	÷	9	=	2
27	÷	9	=	3
36	÷	9	=	4
45	÷	9	=	5
54	÷	9	=	6
63	÷	9	=	7
72	÷	9	=	8
81	÷	9	=	9
90	÷	9	=	10
99	÷	9	=	11
108	÷	9	=	12
0	÷	10	=	0
10	÷	10	=	1
20	÷	10	=	2
30	÷	10	=	3
40	÷	10	=	4
50	÷	10	=	5
60	÷	10	=	6
70	÷	10	=	7
80	÷	10	=	8
90	÷	10	=	9
100	÷	10	=	10
110	÷	10	=	11
120	÷	10	=	12

DIVISION LEVEL 6
Divisors of 11 and 12

0	÷	11	=	0
11	÷	11	=	1
22	÷	11	=	2
33	÷	11	=	3
44	÷	11	=	4
55	÷	11	=	5
66	÷	11	=	6
77	÷	11	=	7
88	÷	11	=	8
99	÷	11	=	9
110	÷	11	=	10
121	÷	11	=	11
132	÷	11	=	12
0	÷	12	=	0
12	÷	12	=	1
24	÷	12	=	2
36	÷	12	=	3
48	÷	12	=	4
60	÷	12	=	5
72	÷	12	=	6
84	÷	12	=	7
96	÷	12	=	8
108	÷	12	=	9
120	÷	12	=	10
132	÷	12	=	11
144	÷	12	=	12

FRACTIONS LEVEL 1
Reducing Common Fractions

2/12	=	1/6
2/16	=	1/8
2/18	=	1/9
3/9	=	1/3
3/12	=	1/4
4/6	=	2/3
4/8	=	1/2
4/12	=	1/3
4/16	=	1/4
4/18	=	2/9
6/8	=	3/4
6/9	=	2/3
6/12	=	1/2
6/16	=	3/8
6/18	=	1/3
8/12	=	2/3
8/16	=	1/2
8/18	=	4/9
9/12	=	3/4
9/18	=	1/2
10/12	=	5/6
10/16	=	5/8
10/18	=	5/9
12/16	=	3/4
12/18	=	2/3

FRACTIONS LEVEL 2
Renaming Improper Fractions

3/2	=	1 1/2
4/2	=	2
5/2	=	2 1/2
3/3	=	1
4/3	=	1 1/3
5/3	=	1 2/3
6/3	=	2
4/4	=	1
5/4	=	1 1/4
7/4	=	1 3/4
8/4	=	2
5/5	=	1
6/5	=	1 1/5
7/5	=	1 2/5
8/5	=	1 3/5
9/5	=	1 4/5
10/5	=	2
6/6	=	1
7/6	=	1 1/6
11/6	=	1 5/6
8/8	=	1
9/8	=	1 1/8
11/8	=	1 3/8
13/8	=	1 5/8
15/8	=	1 7/8

FRACTIONS LEVEL 3
Adding and Subtracting Fractions

1/3	+	1/3	=	2/3
1/5	+	3/5	=	4/5
1/4	+	1/4	=	1/2
1/6	+	1/6	=	1/3
3/8	+	1/8	=	1/2
5/8	+	1/8	=	3/4
1/8	+	1/8	=	1/4
2/9	+	1/9	=	1/3
2/9	+	4/9	=	2/3
1/3	+	2/3	=	1
5/8	+	3/8	=	1
3/5	–	2/5	=	1/5
7/9	–	5/9	=	2/9
3/4	–	1/4	=	1/2
5/6	–	1/6	=	2/3
7/8	–	1/8	=	3/4
7/8	–	3/8	=	1/2
5/8	–	3/8	=	1/4
8/9	–	2/9	=	2/3
7/9	–	4/9	=	1/3
1	–	1/2	=	1/2
1	–	1/3	=	2/3
1	–	3/4	=	1/4
1	–	2/5	=	3/5
1	–	5/8	=	3/8

FRACTIONS LEVEL 4
Multiplying Decimals

10	x	.1	=	1
10	x	.3	=	3
10	x	.9	=	9
10	x	.01	=	.1
10	x	.03	=	.3
10	x	.09	=	.9
10	x	.11	=	1.1
10	x	.13	=	1.3
10	x	.19	=	1.9
10	x	.001	=	.01
10	x	.003	=	.03
10	x	.009	=	.09
10	x	.011	=	.11
10	x	.013	=	.13
100	x	.1	=	10
100	x	.3	=	30
100	x	.9	=	90
100	x	.01	=	1
100	x	.03	=	3
100	x	.09	=	9
100	x	.11	=	11
100	x	.13	=	13
100	x	.001	=	.1
100	x	.003	=	.3
100	x	.009	=	.9

FRACTIONS LEVEL 5
Finding Percentages

10%	x	130	=	13
10%	x	110	=	11
10%	x	90	=	9
10%	x	30	=	3
10%	x	10	=	1
10%	x	13	=	1.3
10%	x	11	=	1.1
10%	x	9	=	.9
10%	x	3	=	.3
10%	x	1	=	.1
10%	x	1.3	=	.13
10%	x	1.1	=	.11
10%	x	.9	=	.09
10%	x	.3	=	.03
10%	x	.1	=	.01
1%	x	130	=	1.3
1%	x	110	=	1.1
1%	x	90	=	.9
1%	x	30	=	.3
1%	x	10	=	.1
1%	x	13	=	.13
1%	x	11	=	.11
1%	x	9	=	.09
1%	x	3	=	.03
1%	x	1	=	.01

FRACTIONS LEVEL 6
Fraction/Percentage Equivalents

1/100	=	1%
1/50	=	2%
1/25	=	4%
1/20	=	5%
1/12	=	8 1/3%
1/10	=	10%
3/10	=	30%
7/10	=	70%
9/10	=	90%
1/8	=	12 1/2%
3/8	=	37 1/2%
5/8	=	62 1/2%
7/8	=	87 1/2%
1/6	=	16 2/3%
5/6	=	83 1/3%
1/5	=	20%
2/5	=	40%
3/5	=	60%
4/5	=	80%
1/4	=	25%
3/4	=	75%
1/3	=	33 1/3%
2/3	=	66 2/3%
1/2	=	50%
1	=	100%

REVIEW LEVEL 1
Addition and Subtraction

2 + 1 = 3
5 + 0 = 5
7 + 1 = 8
6 + 3 = 9
8 + 2 = 10
6 + 5 = 11
10 + 2 = 12
9 + 5 = 14
12 + 3 = 15
10 + 6 = 16
13 + 4 = 17
9 + 9 = 18
8 − 4 = 4
9 − 5 = 4
10 − 7 = 3
11 − 1 = 10
12 − 3 = 9
13 − 5 = 8
14 − 3 = 11
15 − 2 = 13
11 − 8 = 3
12 − 7 = 5
13 − 9 = 4
14 − 8 = 6
15 − 6 = 9

REVIEW LEVEL 2
Addition and Subtraction

11 + 8 = 19
14 + 5 = 19
13 + 7 = 20
15 + 6 = 21
12 + 10 = 22
18 + 4 = 22
11 + 12 = 23
15 + 8 = 23
12 + 12 = 24
15 + 9 = 24
13 + 12 = 25
16 + 9 = 25
17 + 8 = 25
16 − 0 = 16
17 − 2 = 15
18 − 4 = 14
19 − 1 = 18
19 − 4 = 15
20 − 3 = 17
15 − 8 = 7
16 − 5 = 11
17 − 6 = 11
18 − 7 = 11
19 − 6 = 13
20 − 9 = 11

REVIEW LEVEL 3
Multiplication and Division

1 x 0 = 0
1 x 3 = 3
1 x 6 = 6
2 x 2 = 4
2 x 4 = 8
2 x 9 = 18
3 x 3 = 9
3 x 7 = 21
3 x 11 = 33
4 x 5 = 20
4 x 8 = 32
4 x 12 = 48
2 ÷ 1 = 2
5 ÷ 1 = 5
9 ÷ 1 = 9
6 ÷ 2 = 3
10 ÷ 2 = 5
14 ÷ 2 = 7
0 ÷ 3 = 0
12 ÷ 3 = 4
18 ÷ 3 = 6
27 ÷ 3 = 9
16 ÷ 4 = 4
28 ÷ 4 = 7
40 ÷ 4 = 10

REVIEW LEVEL 4
Multiplication and Division

5 x 4 = 20
5 x 9 = 45
6 x 2 = 12
6 x 3 = 18
6 x 5 = 30
6 x 8 = 48
7 x 2 = 14
7 x 5 = 35
7 x 8 = 56
7 x 12 = 84
8 x 3 = 24
8 x 8 = 64
8 x 11 = 88
15 ÷ 5 = 3
30 ÷ 5 = 6
60 ÷ 5 = 12
24 ÷ 6 = 4
42 ÷ 6 = 7
66 ÷ 6 = 11
7 ÷ 7 = 1
49 ÷ 7 = 7
63 ÷ 7 = 9
16 ÷ 8 = 2
40 ÷ 8 = 5
48 ÷ 8 = 6

REVIEW LEVEL 5
Multiplication and Division

9 x 6 = 54
9 x 8 = 72
9 x 9 = 81
10 x 3 = 30
10 x 7 = 70
10 x 11 = 110
11 x 5 = 55
11 x 7 = 77
11 x 9 = 99
12 x 3 = 36
12 x 6 = 72
12 x 9 = 108
12 x 12 = 144
27 ÷ 9 = 3
36 ÷ 9 = 4
108 ÷ 9 = 12
60 ÷ 10 = 6
80 ÷ 10 = 8
120 ÷ 10 = 12
44 ÷ 11 = 4
121 ÷ 11 = 11
132 ÷ 11 = 12
24 ÷ 12 = 2
96 ÷ 12 = 8
132 ÷ 12 = 11

REVIEW LEVEL 6
Fractions

2/16 = 1/8
3/9 = 1/3
4/8 = 1/2
6/12 = 1/2
8/12 = 2/3
9/18 = 1/2
10/16 = 5/8
12/16 = 3/4
3/2 = 1 1/2
5/2 = 2 1/2
6/3 = 2
7/4 = 1 3/4
9/5 = 1 4/5
11/6 = 1 5/6
8/8 = 1
13/8 = 1 5/8
1/5 + 3/5 = 4/5
1/6 + 1/6 = 1/3
5/8 + 1/8 = 3/4
2/9 + 4/9 = 2/3
7/9 − 5/9 = 2/9
7/8 − 1/8 = 3/4
8/9 − 2/9 = 2/3
1 − 1/3 = 2/3
1 − 5/8 = 3/8

APPENDIX B – PARENT/TEACHER TIPS 71

Here are some enriching math activities that can be done at home or in the classroom to complement *New Math Blaster Plus* and enhance learning.

- ✓ Use the Test Maker feature to create a pretest or diagnostic test using one of the *New Math Blaster Plus* files, or create your own test using the Editor. Students can use the test before practicing on the computer or after the computer lesson to check progress and retention.

- ✓ Relate basic math facts to everyday events. Shopping for food, making change, or figuring out distance are all topics that involve math. Use students' names in word problems to add motivation. Example: John needs 10 pencils. He bought 1 pencil for 5 cents. How much money does he need for 10 pencils?

- ✓ Use a crayon or marker to write the numbers from 1 to 12 in the sections of an egg carton (one number per section). Put two lima beans or stones inside the carton, close it, and shake it. When the carton is opened, two sections will contain the beans. Add, subtract, multiply, or divide the numbers in those sections. Individual students or groups can practice their math.

- ✓ Make blank bingo boards and have students fill them with math equations without answers. Depending on the students' level, the facts can be varied (one operation or several operations combined). Call out answers and have students look for the matching equations. As a variation, have students write answers (specify a range of numbers) on their boards. Call out math equations and have the students look for the matching answers. The first one to call "FACTO" wins.

- ✓ Have the students cut out numbers from the newspaper. Paste the numbers on a sheet of paper so they make equations. See how many equations can be made from one newspaper.

- ✓ A hand-held calculator with a constant feature is needed for this activity. The constant means that you can add a number such as 8, for example, to many different numbers without having to press the 8 key and the plus key each time. If you are viewing the 3 family, press the appropriate keys for the addition of the constant 3 and hand the calculator to a student. The student tries to figure out what the calculator is doing by pressing any number key, then the equals key. After doing this several times and noting the result, the student will be able to solve the mystery. Operations can be varied to apply to students at different levels. Students can work together.

- ✓ Cut out a colorful picture from a magazine. Mount the picture on cardboard. Cut the mounted picture into many different pieces (squares or irregular shapes of different sizes). Put the picture together on top of a piece of cardboard and trace each piece. Write a math fact on the back of each picture piece. Write the matching answer on the corresponding traced section. Scramble the picture pieces and have students match the facts with the correct answers. If the picture is put together, it means that the facts were solved correctly.

- ✓ Make interesting flashcards on a classroom or holiday theme. For example, a football shape can be used during the fall. Make a football pattern and trace several footballs; cut each one in half. (Make sure that no two are cut exactly the same way.) Write the equation on one half and the answer on the other half. Scramble the footballs and have students find the matching pieces. This activity gives students a chance to practice math facts and make their own flashcards too.

APPENDIX C – TROUBLESHOOTING 73

MS-DOS VERSION

If the screen goes blank or you are not getting 16 colors:
You have selected the wrong display adapter. Reboot your computer. If the program is installed on a hard disk, go to the directory where it is installed, and type **setup** to reset the default properly. If you are running the program from a floppy drive, restart the program and reset the default when prompted.

If a menu item cannot be highlighted:
This means that the menu item is not available at this time. **Note:** Subject, Level, and Format can only be selected from the Main screen.

If the hard disk installation terminates before its completion:
Make sure that the program disk is not write-protected, that there is adequate space for the program on your hard disk, and that you have typed in the command completely.

If the computer can't find your data files or record files:
Make sure you have selected the correct drive from the File Requestor Box, your records disk or data disk is in the drive, you are in the correct directory if using a hard disk, and your disks are not damaged.

If the format options are not highlighted when Your Data or Fraction files are selected:
You can only view these files in the horizontal format.

If F1 is not working:
There may not be Help available in that part of the program. Please refer to the manual for directions.

If you are unable to enter answers from right to left:
These are not math problems to be calculated. Students should practice until they know them instantly without stopping to calculate. For this reason, answers are entered from left to right.

If you are using an extended memory manager:
You may discover a conflict between your extended memory manager and *New Math Blaster Plus.* These conflicts can usually be resolved by using the *exclude* command related to your extended memory manager. Please refer to the user documentation for your extended memory manager and use the *exclude* command with the appropriate memory address listed below.

- If your computer has 1 megabyte of RAM memory and you are experiencing a lockup after typing the command to start the program, use the *exclude* command with the memory address **B000–B7FF**.
- If your computer has more than 1 megabyte of RAM, the address to *exclude* would be **A000–C7FF**.

MACINTOSH VERSION

If you cannot print:
Check to make sure your printer is turned on, the paper is not jammed, and the cables are not loose.

If the program disk will not read your records disk:
The disk name currently being read is displayed in a box at the top of the screen. Select **Drive** in the File Requestor Box to read a disk in another drive.

If the program crashes or hangs:
You are using a black-and-white computer with less than 1 megabyte of memory or a color computer with less than 2 megabytes of memory, or your system disk has not been updated to the required System 6.0.4 or higher.

Note: Our program may have problems with certain INIT/cdevs, such as some screen savers. If problems occur, disable or remove your INIT/cdevs, one at a time, until the problem is resolved.

If a problem does not appear in vertical mode:
The problem must have an operator and an equal sign in order to be displayed in the vertical mode.

WINDOWS VERSION

Note:
The program cannot be used with Windows 3.0 in Real mode; the program operates in Standard or Enhanced mode.

If the program produces beeps through the internal speaker:
The program produces sounds through the Windows Multimedia system used with a sound card. If Windows Multimedia is not used, the program produces beeps through the internal speaker.

If a menu item cannot be highlighted:
This means that the menu item is not available at this time. **Note:** Subject, Level, and Format can only be selected from the Main screen.

If the computer can't find your data files or record files:
Make sure you have selected the correct drive from the File Requestor Box, your records disk or data disk is in the drive, you are in the correct directory if using a hard disk, and your disks are not damaged.

If a problem does not appear in vertical mode:
The problem must have an operator and an equal sign in order to be displayed in the vertical mode.

If you are unable to enter answers from right to left:
These are not math problems to be calculated. Students should practice until they know them instantly without stopping to calculate. For this reason, answers are entered from left to right.

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INDEX — MACINTOSH VERSION 77

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ABOUT THE AUTHORS

New Math Blaster Plus was developed by a team of educators and programmers. The team was directed by Dr. Jan Davidson, former teacher and founder and president of Davidson & Associates, Inc., and Mike Albanese, director of programming.

The *New Math Blaster Plus* team:

Cathy Siegel served as product manager, coordinated the design and development of the product, and wrote the manual;
Dori Friedman served as product advisor for the Windows version;
Louis Savain programmed the MS-DOS version, assisted by
Drew Vinciguerra and
Larene Wade Spitler;
David Ely and
Kristine Sato programmed the Macintosh version;
Louis Savain and
Carl Byington programmed the Windows version (special thanks to David Seifert);
Janis Eto created the screen graphics for all versions;
Cathy Johnson created the data files, and designed and edited the manual;
Joe Skelley programmed the Windows Help files and assisted with the manual;
Kelly Yeary assisted with the manual and the testing;
Phil Van Duyne programmed the MS-DOS sound effects.

Anne Hertz, Faye Schwartz, Leslie House, Sara Fox, and Davina Klein assisted in the design and testing. John McCormick, Kristin Ahlforth, Barbara De Witt, Michael Belanger, David Reed, Erin Yoshida, Julia Anderson, Lori Hayase, Michaelle Fields, Aaron Podway, Susan Crane, Matthew Paige, Eric Besner, Kathy Bucklin, Patricia Masai, and Gene Wilks assisted in the testing and evaluation of this product. Carol Carpenter assisted in creating the screen graphics.

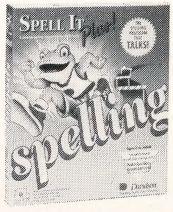
The team wishes to acknowledge the many helpful suggestions and ideas received from the parents, teachers, and children who tested and evaluated this product, in particular the advice and expertise of Sue Marshall, Joanie Reiter, Alex Barnett, Katie Bryan, Lisa Antonelli, and Alan Siegel.

Have fun while you're learning with these award-winning programs from Davidson!

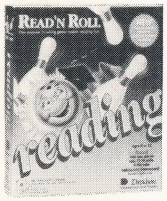
Ages 10 and up

With **Math Blaster Mystery**, you can climb the detective ladder from Computation Cadet to Chief Problem Solver! The program's five activities lead you step by step through word problems. And you'll have fun practicing your problem-solving skills as you search the Victorian rooms for the mystery numbers.
Avail. for IBM/Tandy/PC Compatibles, Apple II Family, Mac

Davidson's **Spell It Plus** frog encourages students to master over 1,000 commonly misspelled words as he runs, jumps, hurdles, and rides his surfboard through each activity. *New MS-DOS version includes state-of-the-art graphics and speech!*
Available for IBM/Tandy/PC Compatibles, Apple II Family



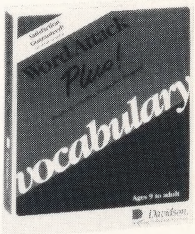
Ages 6 and up



Ages 8 and 14

Read 'N Roll's popular bowling game makes learning fun! Five challenging activities make reading as enjoyable as it is educational. Motivating graphic reinforcements and hints improve reading comprehension in critical areas.
Available for IBM/Tandy/PC Compatibles, Apple II Family

Have fun as you learn new vocabulary words and improve your reading and writing abilities. **Word Attack Plus** sequentially leads you through five learning activities, including an arcade game. French and Spanish vocabulary versions available. *New MS-DOS version has speech!*
Available for IBM/Tandy/PC Compatibles, Apple II Family
(Macintosh version of original Word Attack also available)



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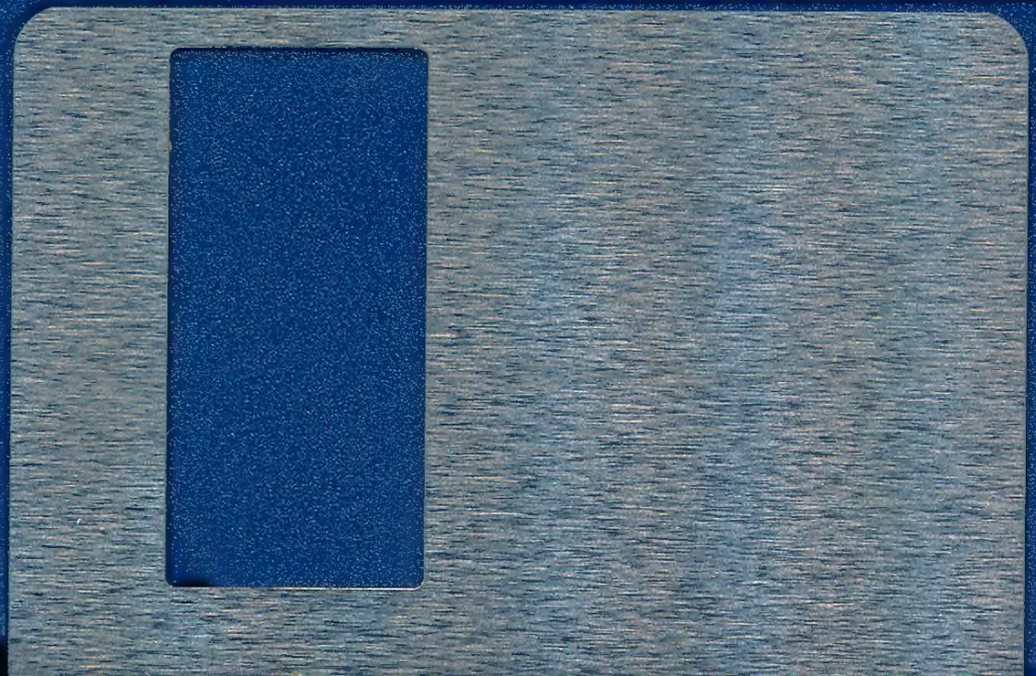

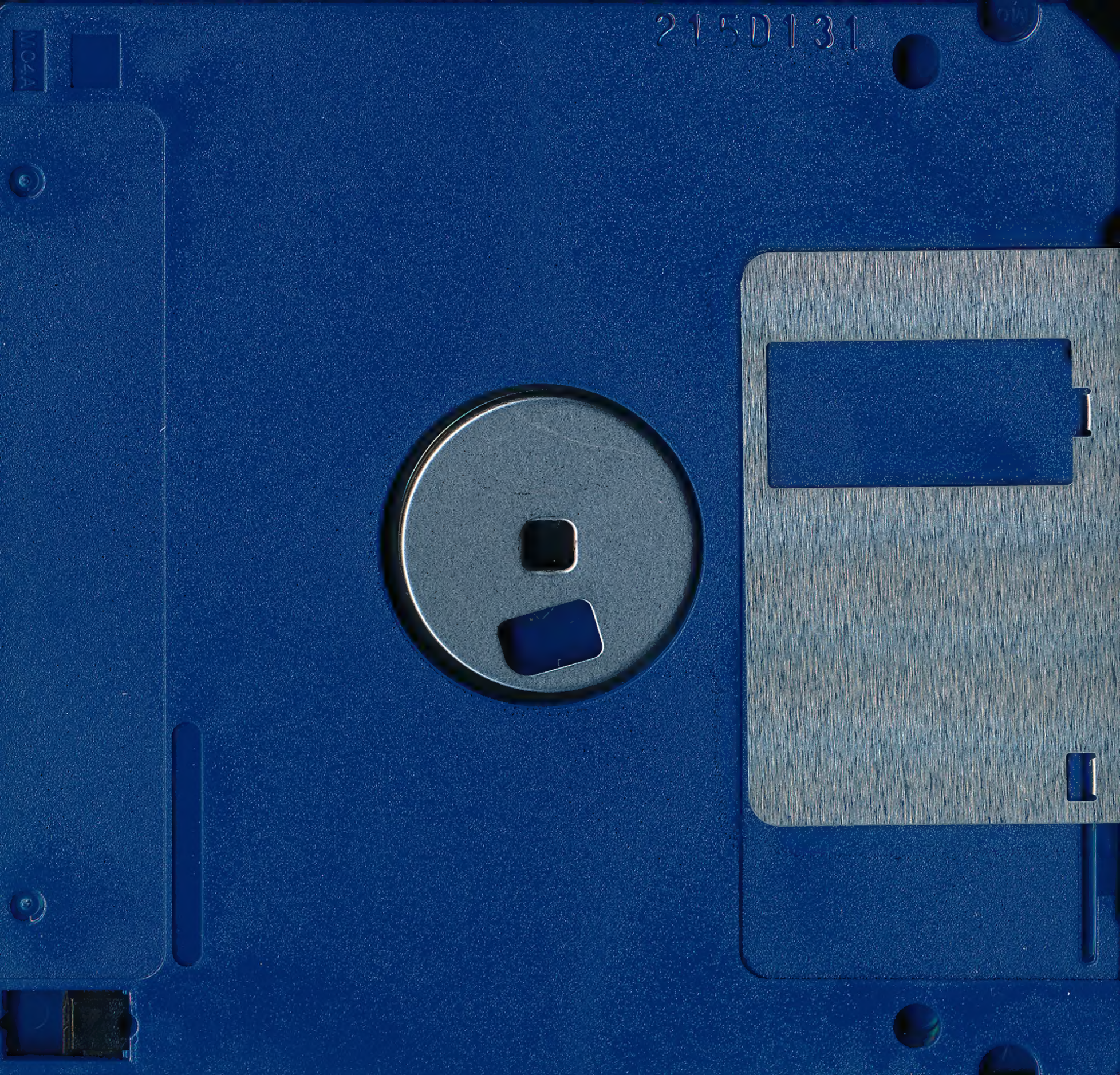
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