EI-8899
Grades 1+
Ages 6+

Math Whiz®

Player's Guide

Notes:

Math Whiz®

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WHY IS MATH WHIZ AN IMPORTANT LEARNING TOOL?

After using Math Whiz, you will be able to:

- apply math skills to the real world
- develop problem-solving techniques
- inquire, analyze, and reason mathematically
- communicate mathematically

Math Whiz's fast, continuous drill games and instant feedback give you the basic tools you need to reason and problem-solve accurately and effectively.

INTRODUCTION TO MATH WHIZ

Congratulations! You have chosen Math Whiz, the calculator and electronic game that improves math skills. Math Whiz has three modes—DRILL, CALCULATOR, and CHALLENGE.

Math Whiz **DRILL** is a progressive sequence of problems in four skills: addition, subtraction, multiplication, and division. There are thousands of problems! Self-directed and self-motivating, Math Whiz Drill gives players the confidence to use mathematics in everyday activities. Math Whiz users of all ages and skill levels find that these features help them sharpen math skills at their own individual pace.

➤ ***Repeated Drill*** - Each **SKILL** has eight sequential levels. At each level, there are ten or more games—ten problems per game. At the end of each game, the player can choose to replay that game to improve timing or change to another level or another skill.

➤ ***Immediate Feedback*** - Different tones and happy faces or sad faces tell the player whether the answer is correct or incorrect.

➤ ***No-Fail Game Format*** - Incorrect answers are recycled into the game and repeated. Game play continues until all problems are answered correctly.

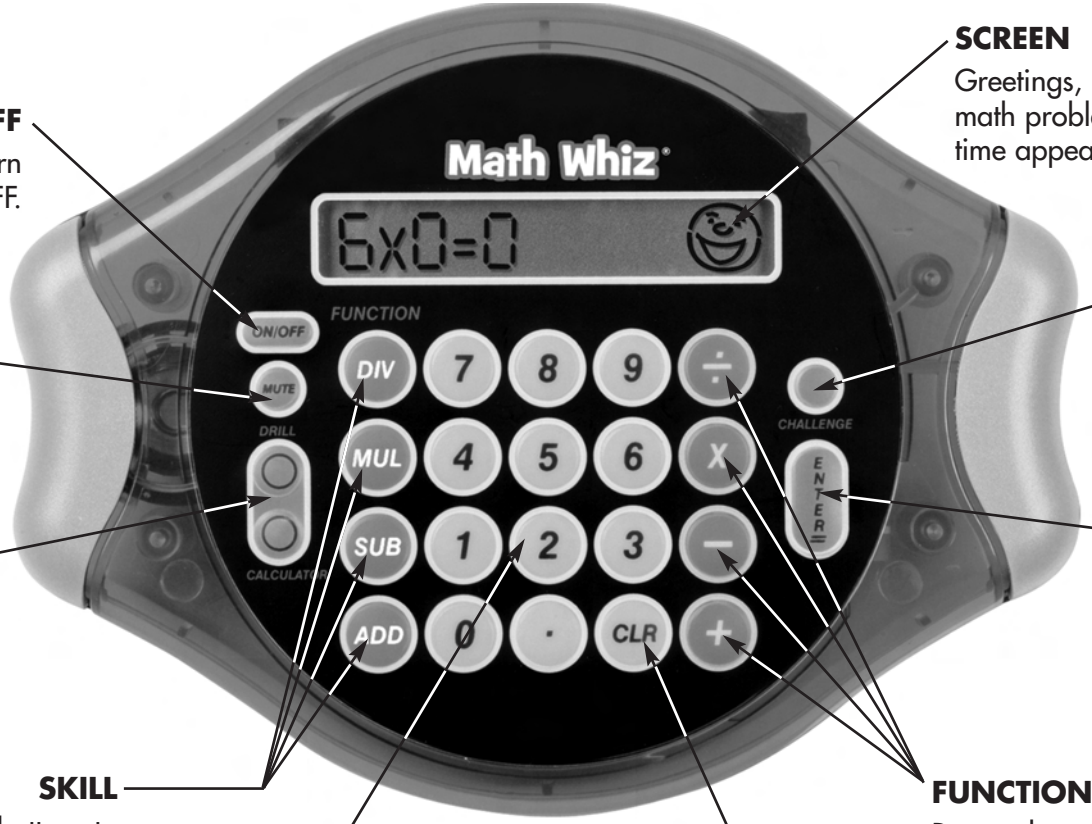
➤ ***Self-Assessment*** - At the end of each game, a player's elapsed time is shown on the screen. The player can try to improve that time by repeating the game.

As a **CALCULATOR**, Math Whiz performs arithmetic calculations for home or school.

Math Whiz **CHALLENGE** is a numbers elimination game that keeps players' math minds working.

SPECIAL FEATURES

BATTERY COMPARTMENT ON BACK
Requires two AAA batteries.



SCREEN
Greetings, selection menus, math problems, and elapsed time appear on the screen.

ON/OFF
Use this button to turn Math Whiz ON and OFF.

CHALLENGE
Press this button for a numbers elimination challenge.

MUTE
Press to turn off sound.

ENTER
Press this button to enter answers in DRILL mode or find the answer in CALCULATOR mode.

DRILL/CALCULATOR
Use this button to choose a mode.

SKILL
Press one of these buttons to select a SKILL—ADD, SUBTRACT, MULTIPLY, or DIVIDE.

FUNCTION
Press a key to add, subtract, multiply, or divide.

NUMERAL BUTTONS
Use these to input answers.

CLR
To change an answer, use the CLR button to erase the most recent number input.

HOW TO USE MATH WHIZ

Math Whiz is three fully functional learning tools in one! Here's how to use Math Whiz. Press ON to start.

For DRILL

1. Press DRILL.
2. Choose one of four skills: ADD, SUBTRACT, MULTIPLY or DIVIDE.
3. Choose a LEVEL from 1 to 8. (One is easiest.)
4. After choosing SKILL and LEVEL, the screen displays EXAMPLES.
5. Press ENTER to start a game, or CLR to choose a different SKILL or LEVEL.
   - At levels 1 and 2, you need to select a number to drill. INPUT a number: 0–9 in ADD and SUBTRACT, 0–12 in MULTIPLY, 1–12 in DIVIDE.
6. The first problem appears. Input an answer, then press ENTER.
   - If the answer is correct, the  flashes and the correct answer tone plays.
   - If the answer is incorrect, the  flashes and the incorrect answer beep plays. The game recycles the problem. **Play continues until all 10 problems are answered correctly**.
7. At the end of each game, the screen displays a congratulatory message and the elapsed time. Your goal—beat your time!
8. You can choose to repeat the SAME GAME or return to the main menu to choose a SKILL and LEVEL.
   - Press ENTER to play the same game, press CLR to select a new skill and level.

For CALCULATOR

1. Press CALCULATOR.
2. Input the first number.
3. Press a function key (+ - x ÷).
4. Input the next number.
5. Press ENTER/= and the answer will show.
6. Continue the process for a multiple-step problem.
7. Press CALCULATOR, CLR or 0 to begin a new problem.

For CHALLENGE

The object of CHALLENGE is to eliminate numbers before the numbers eliminate you!

1. Press CHALLENGE.
2. Numbers will appear on the screen from left to right, one after another. You must eliminate numbers that add up to 10.
3. On the number pad, press the numbers adding to 10 as they appear on the screen. For example, if digits appear in this order:

   2 7 8

   you should press the 2 and 8 to eliminate those addends from the screen. If digits appear in this order:

   3 4 5 2

   you can press 3 5 2 to equal 10.

   ➤ You can press up to three numbers to equal 10.

   ➤ If you press an incorrect number combination—you lose!

   ➤ As soon as you let 8 digits display across the screen, the CHALLENGE is over—you lose!
4. Numbers continue to appear, so you must continue to eliminate! Remember, your goal is to stay in the game!

   ➤ Anytime you see this  press ENTER to cancel it from the screen. This gives you a "free" elimination. Then you'll have to start your addends over again.
5. Each time you eliminate addends of 10, you score 10 points. At 1,000 points CHALLENGE pauses. Then you advance to the next level, which goes *faster!*
6. There are 5 levels. At each level the speed increases. You'll have to work faster! Once you reach level 5 there is NO SCORE LIMIT! You can play forever unless you let 8 numbers appear on the screen (or wear down the batteries)! See how long you can keep the CHALLENGE going!

To conserve batteries, Math Whiz is set to turn off after 300 seconds, or five minutes, of nonuse in any mode. Press the ON button to resume play. When the game is over, the elapsed time at the end of a game will say 300 SECS, the maximum time. To begin a new game, press Math Whiz off and on again.

CONTENT BY SKILL LEVEL

On the following pages, you will find a definition and examples of the kinds of problems on each level.

ADD

Level 1: Basic addition facts 0–9 in sequential order. Player selects number to drill, such as 4.

4 + 1 = ? **4 + 2 = ?**

Level 2: Basic addition facts 0–9 in non-sequential order. Player selects number to drill, such as 2.

2 + 4 = ? **2 + 9 = ?**

Level 3: Basic addition facts 0–9 in non-sequential order. Drill numbers are randomly mixed.

3 + 5 = ? **4 + 9 = ?**

Level 4: Add 2-digit numbers to 1-digit numbers without regrouping.

23 + 4 = ?

Level 5: Add 2-digit numbers to 2-digit numbers without regrouping.

51 + 34 = ?

Level 6: Add three 1-digit numbers.

3 + 5 + 4 = ?

Reminder

Suggestions for mental reminders in adding three numbers:
- *Add the first two numbers, then add the sum to the third.*
- *Add the easier two numbers, then add the sum to the third.*

Level 7: Add 2-digit numbers to 1-digit numbers or 2-digit numbers with regrouping.

28 + 9 = ? **45 + 36 = ?**

Level 8: Introduces the pre-algebra concept of finding the missing number (shown as **?**).

2 + ? = 9 **? + 70 = 80**

Reminder

Determine the answer "mentally" and enter the whole answer.

SUBTRACT

Level 1: Basic subtraction facts 0–9 in sequential order.
Player selects number to drill.

5 – 2 = ? **6 – 2 = ?**

Level 2: Basic subtraction facts 0–9 in non-sequential order.
Player selects number to drill.

16 – 8 = ? **13 – 8 = ?**

Level 3: Basic subtraction facts 0–9 in non-sequential order.
Drill numbers are randomly mixed.

5 – 3 = ? **9 – 2 = ?**

Level 4: Subtract 1-digit numbers from 2-digit numbers without regrouping.

25 – 4 = ?

Level 5: Subtract 2-digit numbers from 2-digit and 3-digit numbers without regrouping.

654 – 13 = ?

Reminder  *Determine the answer "mentally" and enter the whole answer.*

Level 6: Subtract 1-digit numbers from 2-digit numbers with regrouping.

43 – 9 = ?

Level 7: Subtract 2-digit numbers from 2-digit and 3-digit numbers with regrouping.

92 – 58 = ? **170 – 27 = ?**

Level 8: Introduces the pre-algebra concept of finding the missing number (shown as **?**) in subtraction problems.

? – 2 = 0 **100 – ? = 7**

MULTIPLY

Level 1: Basic multiplication facts 0–12 in sequential order.
Player selects number to drill.

5 x 5 = ? **6 x 5 = ?**

Level 2: Basic multiplication facts 0–12 in non-sequential order.
Player selects number to drill.

2 x 5 = ? **8 x 5 = ?**

Level 3: Basic multiplication facts 0–12 in non-sequential order.
Drill numbers are randomly mixed and include multiplication by numbers up to 12.

5 x 3 = ? **9 x 2 = ?**

Level 4: Multiply 2-digit numbers by 1-digit numbers without regrouping.

23 x 3 = ?

Level 5: Multiply 1-digit or 2-digit numbers by a number ending in one or two zeros.

4 x 100 = ? **12 x 30 = ?**

Level 6: Multiply three 1-digit factors.

3 x 5 x 4 = ?

Suggestions for mental reminders in multiplying three factors:
- *Multiply the first two numbers, then multiply the product by the third.*
- *Multiply the easier two factors, then multiply the product by the third factor.*

Level 7: Multiply 2-digit numbers by 1-digit numbers with regrouping.

47 x 3 = ?

Reminder  *Use your estimating skills at this level. Estimation is a valuable tool in mental math. Remember to enter the whole answer.*

Level 8: Introduces the pre-algebra concept of finding the missing factor (shown as **?**) in multiplication.

6 x ? = 12 **? x 5 = 20**

DIVIDE

Level 1: Basic division facts 1–12 in sequential order. Player selects number to drill.

2 ÷ 2 = ? **4 ÷ 2 = ?**

Level 2: Basic division facts 1–12 in non-sequential order. Player selects number to drill.

9 ÷ 3 = ? **15 ÷ 3 = ?**

Level 3: Basic division facts 1–12 in non-sequential order. Drill numbers are randomly mixed and include divisors up to 12.

12 ÷ 4 = ? **18 ÷ 2 = ?**

Level 4: Divide numbers ending in zero by 10 or divide numbers ending in two zeros by 100.

560 ÷ 10 = ? **200 ÷ 100 = ?**

Level 5: Divide 3-digit numbers by 1-digit numbers.

364 ÷ 4 = ?

Level 6: Divide 2-digit numbers by 1-digit numbers.

78 ÷ 3 = ?

Level 7: Introduces the pre-algebra concept of finding the missing divisor (shown as **?**).

60 ÷ ? = 3

Level 8: Introduces the pre-algebra concept of finding the missing dividend (shown as **?**).

? ÷ 4 = 6

CARING FOR MATH WHIZ

Battery Installation

1. Use a screwdriver to carefully open the battery compartment on the bottom of Math Whiz.
2. Install two fresh AAA batteries (batteries not included), following the illustration inside the battery compartment.
   - Batteries must be installed with the correct polarity.
   - Only batteries of the same or equivalent type are to be used.
   - Alkaline batteries are preferable.
   - Do not mix old and new batteries.
   - Do not mix different types of batteries: alkaline, standard (carbon zinc) or rechargeable (nickel-cadmium) batteries.
   - Do not use rechargeable batteries.
   - The supply terminals must not be short-circuited.
   - Non-rechargeable batteries are not to be recharged.
   - Remove exhausted batteries from the unit.
3. Close the compartment door and tighten the screw.
4. To prevent battery corrosion, it is recommended the batteries be removed from the unit if it is not in use for two weeks.

Note: If your Math Whiz is not operating properly, **try installing two new alkaline batteries**. Weak batteries are the number one reason for consumer complaints.

Cleaning

Clean with a damp or dry cloth. Do not immerse Math Whiz in water. Do not spray any liquid or water on Math Whiz.

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio TV technician for help.