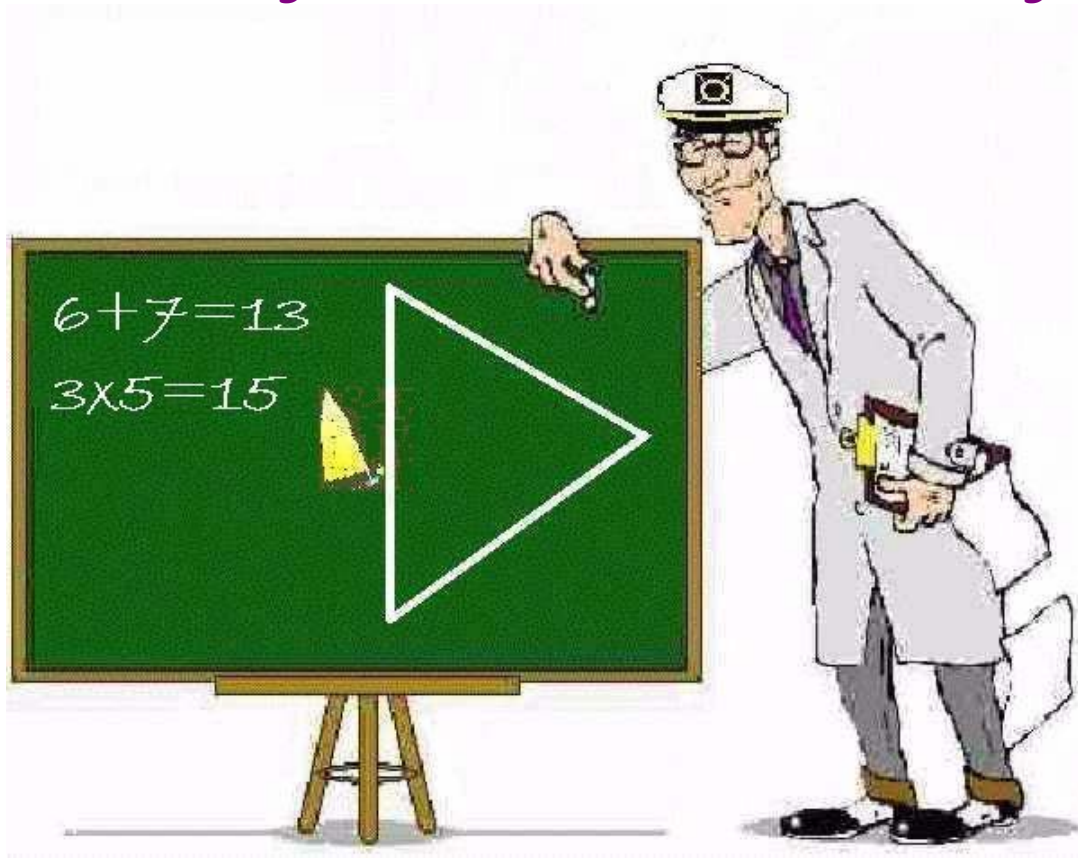


# CAPJAXMATHFAX™

*Skill-Building Software For Smooth Math Sailing!*



## TEACHER GUIDE

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# CAPJAXMATHFAX™

## OVERVIEW

Learners need just two things to master their basic math facts: practice and positive reinforcement. CAPJAXMATHFAX™ with its proprietary rating system provides these through structured, fun exercises and immediate non-aversive feedback. Teachers schedule practice and strengthen the positive value of feedback with encouragement. 5-minute sessions three to five times per week are recommended. Learners are encouraged to "Play for Rating" and to maintain personal graphs of their daily progress. Graph forms are included as MS-Word documents with the software.

## INSTALLATION

The installation CD-ROM contains the CapJaxMathFax™ program and other useful files including a copy of this Guide and a form for graphing student results.

**Windows.** Install using the "Add/Remove Programs" wizard in the Control Panel. After installation, open CapJaxMathFax in Program Files. Click on **Mfax.exe** with the right mouse button to create a shortcut icon you can copy to your desktop. You may rename the shortcut "CapJax MathFax." Note the space.

**Macintosh.** Copy the contents of the CD-ROM to a folder on your desktop. Click the CapJax™ icon to run.

## SIGN IN

When "Playing for Rating" learners must sign in with first and last names. These may include nicknames and initials. The sign-in name identifies the learner's rating record and appears on all reports. Its appearance is editable. Learners may practice "not-for-rating" without signing in.

## PRACTICE SETUP

CAPJAXMATHFAX™ may be set up for any mix of practice problems or special games. Problems from the defined set are shown randomly. Addition/subtraction facts are based on integers 0-9. Multiplication/division facts use integers 0-10.

There is also a checkbox for multiplication and division by 12.

**Single Level** Levels of difficulty equate to rows from a math table. One of the factors of each fact practiced is determined by the level value. Check **Single Level Practice** for problems from the selected level only. Otherwise, practice includes all problems up to and including the selected level.

**Facts in Set** Setup selections define the number of facts in the practice set. These are presented sequentially until the user exits or resets. A session length may be set with **# Facts Per Session**. When the specified number is reached a summary report to that point is displayed. If practice continues, the full set of facts will be presented before facts are repeated. This is a SUPER answer. The 3-second setting may be extended for learners just getting started or for other special reasons. The setting may also be reduced to create extra challenge. The display of actual response seconds is a checkbox option, but most learners find it positively reinforcing.

**Super Seconds** A fact is "known" when it is solved in one try within three seconds. This is a SUPER answer. The 3-second setting may be extended for learners just getting started or for other special reasons. The setting may also be reduced for extra challenge. The display of response seconds is a checkbox option.

### SELECTIONS:

- + Add (0-1000)
- Subtract (0-1000)
- × Multiply (0-1000)
- ÷ Divide (0-1000)

### LEVEL:

- 3 1-9 (+, -)
- 1-10 (x, ÷)
- Twelves
- Single Level Practice

### 10 FACTS IN SET

- Set # Facts Per Session

### SUPER SECONDS:

- 3  Display Seconds

- PLAY FOR RATING**  
RATING INSTRUCTIONS
- PRACTICE**

**SUPER**  
**6 × 4 = 24**  
1.81 seconds

GET A FACT

## PLAY FOR RATING

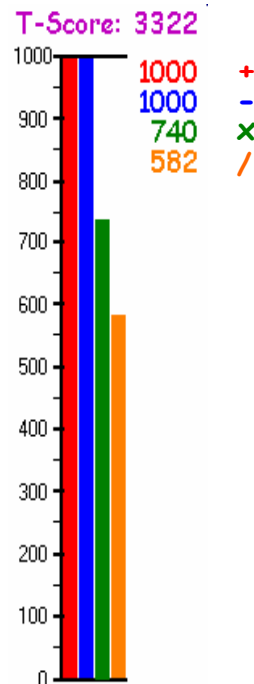
Once they are comfortable with the keyboard controls, students learn fastest when they "Play For Rating." CAPJAXMATHFAX™ uses a proprietary scoring system to make practice fun. The program starts at the easiest levels and tracks progress through each of the four math fact types. Learners watch their ratings grow while they progress through gradually increasing levels of difficulty. Students build focus and concentration as they achieve the SUPER performances needed to advance.

**Rating Format: 0-900.** For ratings to 900, the first digit reflects the level at which the learner has achieved Mastery or 100% SUPER in a single session. Add 1 for multiplication and division since they start at level 2. The next two digits show the percentage of SUPER responses achieved at the current practice level. Extra points are added for each attempt to improve. For example, a 572 rating in Addition means the learner has gotten 100% SUPERS through the "plus 5s" and has gotten 70% SUPER at "plus 6." Two attempts have been made to improve on 70%.

**900+ Ratings.** Ratings above 900 reflect a summary performance of facts from all levels. SUPER responses from 10-fact sessions are accumulated until the total rating reaches 1000.

**T-Score.** The T-Score is a cumulative rating of all four math types.

**4-Color Bar Chart** Learners working for ratings become familiar with graphs. Their progress is displayed in a bar chart. The example shows the learner has mastered addition and subtraction. He or she has also mastered the "times 8s" and achieved 36% SUPER at the "times 9s" (4 out of 11) and has tried four times to improve. The learner has achieved 82% SUPER at division by 7 (9 out of 11).



## RATING RECORDS

The learner's sign-in name is used to create a .cjf record in the CapJaxMathFax folder (normally in C:\Program Files for Windows™). This record shows the learner's name, grade, and current ratings. Start and last session dates along with problem and SUPER counts are also maintained. Records may be viewed and edited with a standard text editor by changing the .cjf extension to .txt. Restore the .cjf extension before using with CapJaxMathFax™.

## POP-UP TABLES

Learners are given three tries to answer a math fact. The answer is shown after the third attempt. Students may obtain answers themselves by referring to pop-up tables available at the click of a button.

**Addition/Subtraction Table**

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

**Multiplication/Division Table**

0	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	9	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

## CAPPERS™

"Cappers" are review facts presented at the end of each rating session. They are not counted in the calculation of the learner's new rating, but they provide immediate additional practice of facts not yet mastered.



## SUMMARY REPORTS

A running summary is maintained during user activity. It may be viewed at any time by using the **SUMMARY** button on the main screen. The report is routinely displayed when defined session lengths are reached. Additional lines for entering teacher and school information are provided.

## DETAIL REPORTS

A diagnostic report shows details of each fact in a session. The report is viewable and printable. Details reflect the total seconds and number of attempts needed to answer a fact. Occasionally, teachers may wish to use information from detail reports to prescribe extra practice for indicated math types and levels. A full detail history is maintained.

## MATH FACT FLUENCY ASSESSMENT

CapJaxMathFax™ may be used to measure or assess a learner's current fluency in each of the math types. This is useful when making determinations about individual strengths and weaknesses and can be helpful in making decisions about remediation. Measures are obtained by presenting the learner with a random sample of facts drawn from the full set for a given math type.

## CLASS REPORTS

Adjunct class reporting software comes with school site-licensed versions of CapJaxMathFax™. Teachers may select their students from the overall school population. Class reports show each student's rating in each math type, the number of days the student has spent on each rating, and the percentage of SUPER responses in each. Averages for the entire class are also reported.

	ADDITION			SUBTRACTION			MULTIPLICATION			DIVISION		
	Rating	Days	Supers	Rating	Days	Supers	Rating	Days	Supers	Rating	Days	Supers
<b>Class Averages:</b>	<b>600</b>	<b>3</b>	<b>87%</b>	<b>621</b>	<b>3</b>	<b>82%</b>	<b>509</b>	<b>6</b>	<b>84%</b>	<b>531</b>	<b>6</b>	<b>88%</b>
Anderson, Steve	1000	6	95%	1000	6	92%	720	21	90%	440	21	92%
Ankers, Samuel	1000	1	95%	1000	1	92%	1000	1	90%	1000	1	92%
Atkins, Suzanne	530	4	57%	161	4	33%	-	-	-	-	-	-
Beasely, Sean	699	2	82%	693	2	83%	268	2	65%	581	2	75%
Jones, Frank	300	1	100%	400	1	95%	400	1	98%	291	1	97%
Cindy, Penney	300	4	100%	400	4	95%	400	6	98%	291	6	97%
Wheatly, Bill	699	2	82%	693	2	83%	268	2	65%	581	2	75%