Richard Wiitala

**NUMBER BLAST**

Multiplication and addition game for 1-2 players (ages 6-16)

Cassette: 16K (APX-10097)  
Diskette: 24K (APX-20097)

User-Written Software for ATARI Home Computers
NUMBER BLAST

by

Richard Wiitala

Program and Manual Contents © 1982 Richard Wiitala

Copyright notice. On receipt of this computer program and associated documentation (the software), the author grants you a nonexclusive license to execute the enclosed software. This software is copyrighted. You are prohibited from reproducing, translating, or distributing this software in any unauthorized manner.
The following are trademarks of Atari, Inc.

ATARI®
ATARI 400™ Home Computer
ATARI 800™ Home Computer
ATARI 410™ Program Recorder
ATARI 810™ Disk Drive
ATARI 820™ 40-Column Printer
ATARI 822™ Thermal Printer
ATARI 825™ 80-Column Printer
ATARI 830™ Acoustic Modem
ATARI 850™ Interface Module

*************************************************************************

Distributed by

The ATARI Program Exchange
P.O. Box 427
155 Moffett Park Drive, B-1
Sunnyvale, CA 94086

To request an APX Software Catalog, write to the address above, or call toll-free:

800/538-1862 (outside California)
800/672-1850 (within California)

Or call our Sales number, 408/745-5535.

*************************************************************************
INTRODUCTION

OVERVIEW

NUMBER BLAST is a one- or two-player number drill combining quick thinking with quick reflexes. The game offers three kinds of addition and three kinds of multiplication drills. In the two-player version, you practice your multiplication and addition while working your Joystick to "blast" to the correct number more quickly than your opponent. But be careful—incorrect answers cost you points. Depending on the kind of drill you choose, the winner is either the first to score 200 points or the one with the higher score at the end of a set number of problems. In the one-player version, you can practice your Joystick techniques and response speed while blasting your way through the drills. In both versions, you may choose a slow, medium, or fast Joystick speed.

REQUIRED ACCESSORIES

Cassette version

16K RAM
ATARI 410 Program Recorder

Diskette version

24K RAM
ATARI 810 Disk Drive

ATARI BASIC Language Cartridge
A set of ATARI Joystick Controllers

CONTACTING THE AUTHOR

Users wishing to contact the author about NUMBER BLAST may write to him at:

798 Lakewood Lane
Marquette, Michigan 49855
LOADING NUMBER BLAST INTO COMPUTER MEMORY

1. Plug your Joystick Controller(s) into the first (and second, if you're playing the two-player version) controller jack(s) at the front of your computer console. Player one uses the first Joystick, player two the second.

2. Insert the ATARI BASIC Language Cartridge in the (Left Cartridge) slot of your computer.

3. If you have the cassette version of NUMBER BLAST:
   a. Turn on your TV set.
   b. Turn on your computer and connect your program recorder to the computer and to a wall outlet.
   c. Slide the NUMBER BLAST cassette into the program recorder's cassette holder and press REWIND on the recorder until the tape rewinds completely. Then press PLAY.
   d. Type CLOAD on your computer and then press the RETURN key two times. The tape will load into computer memory.
   e. After the tape finishes loading, the word READY will display on your TV screen. Type RUN and press the RETURN key. The first display screen will appear on your TV screen.

If you have the diskette version of NUMBER BLAST:

a. Turn on your disk drive.

b. When the BUSY light goes out, open the disk drive door and insert the NUMBER BLAST diskette with the label in the lower right-hand corner nearest to you. Close the door.

c. Turn on your computer and TV set.

d. When the READY prompt displays on your TV screen, type RUN "D:BLAST" and press the RETURN key. If you're using more than one disk drive, remember to follow the device initial (D) with the number of the drive containing the NUMBER BLAST diskette (e.g., RUN "D2:BLAST" for disk drive two). The program will load into computer memory and start.
THE FIRST DISPLAY SCREEN

The program's title and author display briefly, followed by the menu screen:

MENU

1 ADDITION
2 ADDITION TABLES
3 MULTIPLICATION
4 MULTIPLICATION TABLES
5 INTEGER ADDITION
6 INTEGER MULTIPLICATION
7 JOYSTICK SPEED

The first six options concern the kind of problem you want to practice. The last option lets you change the speed with which your joystick changes numbers. This option also displays a chart for using the various joystick directions to obtain your answer. Let's run through these options before beginning a drill.

SELECTING THE TYPE OF DRILL

Select the type of drill you want to practice by pressing the number matching your desired drill. Your choices are:

1 Addition

The program displays random addition problems within the range 1 to 20.

2 Addition Tables

The program works through the addition tables from 1 to 9, with one number picked at random.

3 Multiplication

The program displays random multiplication problems within the range 1 to 12.

4 Multiplication Tables

The program works through the multiplication tables from 1 to 9, with one number picked at random.

5 Integer Addition

The program displays random addition problems with numbers ranging from -20 to 20.

6 Integer Multiplication
The program displays random multiplication problems with numbers ranging from -12 to 12.

SELECTING JOYSTICK SPEED

Use this option to choose the speed at which your Joystick changes your answer on the screen. Your choices are SLOW, MEDIUM, or FAST. The initial setting is FAST. You can best learn the game by starting with a SLOW or MEDIUM Joystick speed. To change the speed, press the OPTION key until your desired speed displays and then release it. The Joystick speed always returns to FAST when you start a new game.

Press and hold the START key to return to the menu.

USING THE JOYSTICK

You use your Joystick to obtain your answer on the screen. Hold your Joystick with the red button at your upper left, with the word "TOP" facing the TV screen.

The four Joystick directions that change your answer are as follows:

1. Push toward TOP, answer increases by 1
2. Push toward self, answer decreases by 1
3. Push to the right, answer increases by 10
4. Push to the left, answer decreases by 10

\[ \text{up by 1} \]
\[ \text{TOP} \]
\[ ^{\uparrow} \]
\[ \mid \]
\[ \text{down by 10} \]
\[ \text{-----} \]
\[ \text{-----} \]
\[ \text{up by 10} \]
\[ \mid \]
\[ \mid \]
\[ \text{down by 1} \]

Figure 1 Joystick Directions

These movements are also summarized in the screen displayed for option 7, JOYSTICK SPEED.

CHOOSING A ONE- OR TWO-PLAYER GAME

NUMBER BLAST distinguishes between a one- and two-player game by the use of the Joystick Controllers. If you plug in one Joystick in the leftmost controller jack, the program assumes that you’re playing a one-player game. You’ll be able to use your Joystick to answer problems for PLAYER 1 on the screen.
If you plug in two Joysticks, the program assumes a competition. The Joystick speed will be the same for both controllers.

GET READY...GET SET...GO!

The program will print two identical problems on your screen, one for each player. Move your joystick in the appropriate direction to obtain your answer and then blast it by pressing the red button. For options 5, INTEGER ADDITION, and 6, INTEGER MULTIPLICATION, you use negative numbers for some answers. Watch for the negative sign in front of your answer. On all the other drill options, the lowest number you can display on the screen is 0.

SCORING

You earn ten points for each correct answer you enter before your opponent (for a two-player game), but you lose five points whenever you blast your way to an incorrect answer as the first player to press the fire button. As soon as one player blasts his way to an answer, whether right or wrong, the player’s score is adjusted and the program then displays a new problem.

For all the options except the addition and multiplication tables, the winner is the first player to score 200 points. The winner of the addition and multiplication tables options is the player with the higher score after the program displays all the problems in the set.

In a one-player game, you play against yourself trying to improve your score in each round. The final challenge is to improve your speed as well as your score!

REPLAYING NUMBER BLAST

You may start NUMBER BLAST over again at any time by pressing and holding the START key and choosing your new option(s).

ACCIDENTALLY PRESSING SYSTEM RESET OR BREAK KEYS

If you unintentionally press either the SYSTEM RESET or the BREAK keys during game play, you can either

1. Type the direct mode command GOTO 15 and press the RETURN key to resume the game where it left off, or

2. Type RUN and press the RETURN key to start the game all over.
SUMMARY

1. Select type of number drill and joystick speed by pressing the matching number on the menu screen.

2. Use option 7 to change joystick speed. SLOW or MEDIUM are best for learning the game.

3. Use your joystick to obtain your answer. Joystick movements are:

   up by 1

   TOP
   ^
   |
   |
   down by 10<----- -----> up by 10
   |
   |
   v
   down by 1

Press the red button to blast your answer.

4. Press and hold the START key to start over.
LIMITED WARRANTY ON MEDIA AND HARDWARE ACCESSORIES.

We, Atari, Inc., guarantee to you, the original retail purchaser, that the medium on which the APX program is recorded and any hardware accessories sold by APX are free from defects for thirty days from the date of purchase. Any applicable implied warranties, including warranties of merchantability and fitness for a particular purpose, are also limited to thirty days from the date of purchase. Some states don't allow limitations on a warranty's period, so this limitation might not apply to you. If you discover such a defect within the thirty-day period, call APX for a Return Authorization Number, and then return the product along with proof of purchase date to APX. We will repair or replace the product at our option.

You void this warranty if the APX product: (1) has been misused or shows signs of excessive wear; (2) has been damaged by use with non-ATARI products; or (3) has been serviced or modified by anyone other than an Authorized ATARI Service Center. Incidental and consequential damages are not covered by this warranty or by any implied warranty. Some states don't allow exclusion of incidental or consequential damages, so this exclusion might not apply to you.

DISCLAIMER OF WARRANTY AND LIABILITY ON COMPUTER PROGRAMS.

Most APX programs have been written by people not employed by Atari, Inc. The programs we select for APX offer something of value that we want to make available to ATARI Home Computer owners. To offer these programs to the widest number of people economically, we don't put APX products through rigorous testing. Therefore, APX products are sold "as is", and we do not guarantee them in any way. In particular, we make no warranty, express or implied, including warranties of merchantability and fitness for a particular purpose. We are not liable for any losses or damages of any kind that result from use of an APX product.
We're interested in your experiences with APX programs and documentation, both favorable and unfavorable. Many software authors are willing and eager to improve their programs if they know what users want. And, of course, we want to know about any bugs that slipped by us, so that the software author can fix them. We also want to know whether our documentation is meeting your needs. You are our best source for suggesting improvements! Please help us by taking a moment to fill in this review sheet. Fold the sheet in thirds and seal it so that the address on the bottom of the back becomes the envelope front. Thank you for helping us!

1. Name and APX number of program

2. If you have problems using the program, please describe them here.

3. What do you especially like about this program?

4. What do you think the program's weaknesses are?

5. How can the catalog description be more accurate and/or comprehensive?

6. On a scale of 1 to 10, 1 being "poor" and 10 being "excellent", please rate the following aspects of this program:
   
   [ ] Easy to use
   [ ] User-oriented (e.g., menus, prompts, clear language)
   [ ] Enjoyable
   [ ] Self-instructive
   [ ] Useful (non-game software)
   [ ] Imaginative graphics and sound

7. Describe any technical errors you found in the user instructions (please give page numbers).
8. What did you especially like about the user instructions?


9. What revisions or additions would improve these instructions?


10. On a scale of 1 to 10, 1 representing "poor" and 10 representing "excellent", how would you rate the user instructions and why?


11. Other comments about the software or user instructions:


ATARI Program Exchange
Attn: Publications Dept.
P.O. Box 50047
60 E. Plumeria Drive
San Jose, CA 95150