## Introduction to


－Learn to count，add and subtract with entertaining pictures．
－Enjoy instant graphic and musical rewards on every exercise．
－Personalize program to meet children＇s needs and track their progress．

## System Requirements

- Memory \& Operating Systems Required:

Apple ${ }^{\circledR}$ II, Apple II+:
Apple IIe, IIc:
$\mathrm{IBM}^{\circledR}$ PC, PCjr, PC XT:
Atari ${ }^{\text {® }} 400,8001200$ XL
600 XL, 800 XL
65XE, 130XE

- Disk drive
- IBM PC \& PC XT also require a double-sided disk drive and color graphics adapter card.
- Atari 400, 800 and 1200 XL users need an Atari BASIC cartridge

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## INTRODUCTION

Introduction to Counting is an animated game that introduces youngsters ages 4 to 7 to the skills they need for counting, measuring and comparing quantities - as well as simple adding and subtracting.

Lively graphics use everyday objects to demonstrate abstract ideas: circles bounce off a series of ramps as the child counts them...a faucet fills a glass with water as the youngster measures the height...the child moves a "scale" to show whether objects are heavier, lighter or equal to each other.

As a parent or teacher, you will especially appreciate the Learning Manager, which allows you to fit the program to an individual's special needs by choosing these options:

- Change from demonstration to drill.
- Specify the number of tries allowed for each problem.
- Enter the name of the student.
- Remove or add learning units.
- Review individual scores for each skill to see what needs more practice.

Kids will like the positive reinforcement: correct responses get the immediate reward of a happy melody and a smile. Proper procedures and answers are displayed when a response is wrong. Its simplified reading level and easy key presses will even make this program fun for younger children. It's a good way to make math enjoyable for kids - right from the start.

# Introduction to Counting 

by

## John Conrad

Introduction ..... 1
Getting Started ..... 4
Loading Instructions ..... 4
Program Demonstration ..... 6
Using the Program ..... 7
Change Learning Mode ..... 8
Add/Change Learning Sequence ..... 9
Trials Per Unit ..... 10
Change Learner ..... 10
Scoreboard ..... 11
Run Introduction to Counting ..... 11
Turn Sound On/Off (IBM) ..... 11
Exit ..... 11
The Eight Learning Units ..... 12
Blocks ..... 13
Circles ..... 13
Shapes ..... 15
Height ..... 15
Weight ..... 15
Length ..... 16
Addition ..... 17
Subtraction ..... 17
Key Equivalents Chart ..... 19
Troubleshooting ..... 20

## GETTING STARTED

If you use an IBM or Atari computer, the keys you press may differ from the keys named throughout this manual. The Key Equivalents Chart on page 19 shows which keys you should use.

## Loading Instructions

Apple, Apple II, II + , IIe, IIc users:
Insert the program disk into disk drive $\# 1$ and turn on your computer and monitor. If you are using an Apple IIe, Apple IIc, or Franklin Ace computer, make sure the [CAPS LOCK] is down. This program only recognizes commands in uppercase characters.

## Atari users:

Insert the program disk into the disk drive and turn on your computer and monitor. (Make sure your BASIC cartridge is installed if you have an Atari 400,800 or 1200 XL .)

## IBM PC, PC XT and PCjr users:

## First Time Use:

1. Insert the DOS disk that came with your computer into the disk drive. This disk should contain the disk operating system (DOS) and a BASICA.COM. file. If you are using a two-drive system, insert the DOS disk in drive A and the program disk in drive B. If you are using a PCjr, make sure that your BASIC cartridge is installed in a cartridge slot.
2. Turn on the computer and monitor. Screen prompts request the date and time. Type them and press the RETURN key [ $\leftarrow$ ]. Now you see the copyright notice and A). Type B: and press the [RETURN] key.
3. Now you see $B\rangle$. If you are using a PCjr, type MAKEPCJR and press the [RETURN] key. For any other system, type MAKEPC and press the [RETURN] key.

If you have a two-drive system, the program will be installed. Go to step 5 for further instructions.

Single-drive systems require the following additional procedures.
4. You'll see the prompt INSERT DISKETTE FOR DRIVE B: AND STRIKE ANY KEY WHEN READY. Remove the DOS disk and insert the program disk into the disk drive. Strike any key on the keyboard. (Follow these instructions whenever you see this prompt.) Whenever you see the prompt INSERT DISKETTE FOR DRIVE A: AND STRIKE ANY KEY WHEN READY, remove the program disk from the disk drive and insert the DOS disk. Then strike any key on the keyboard.
5. Now you see the prompt B>again. To set up the program so that, in the future, it runs automatically, type:

## COPY COUNTING.BAT AUTOEXEC.BAT

and press the [RETURN] key. Type COUNTING and press the [RETURN] key.

If you do not want to set up the program to run automatically, simply type COUNTING in response to the B$\rangle$ prompt and press the [RETURN] key.

## For Subsequent Use:

Insert the program disk into drive $A$ and turn on your computer and monitor. If you are using a PCjr, make sure the BASIC cartridge is installed.

If you have set up the program to run automatically, the program will run. Otherwise, you see the date and time prompts. Respond when they appear. Now you see A>. Type COUNTING and press the [RETURN] key.

## Program Demonstration

Introduction to Counting is preset to give a demonstration of the various learning units. To see the demonstration, simply load the program as described in Loading Instructions. Apple and IBM users press [1] RUN DEMONSTRATION. Atari users press [START].

You may bypass the demonstration and go directly to the Learning Manager Master Menu. To do this, Apple and IBM users press the RIGHT ARROW key while the title page is displayed; Atari users press [SELECT] and [OPTION] at the same time.

## USING THE PROGRAM

Introduction to Counting consists of a Learning Manager and eight learning units:

| Blocks | Shapes | Weights | Addition |
| :--- | :--- | :--- | :--- |
| Circles | Height | Lengths | Subtraction |

The Learning Manager and learning units are controlled through the Learning Manager Master Menu. To get to this menu


Screen appearance may vary with different computers.
from the title page, press the RIGHT ARROW key. (Atari users press [SELECT] and [OPTION] at the same time.)

The top three lines of the Master Menu list the current program status:

MODE indicates whether the system is set for Demonstration, Drill or Picture Menu (IBM only).
LEARNER indicates the name of the last student entered into the system during the current session. If the line reads NO LEARNER, no student name has been entered for this session.

NEXT UNIT shows which unit the current student begins in the next session.

## [1] Change Learning Mode



## <1〉 Drill Mode

(2) Demonstration Mode
(0) EXIT

WHICH ONE (0-2) ??

This selection lets you switch between Demonstration mode and Drill mode. After pressing [1] on the Master Menu, the Mode Menu appears. You can select either [1] DRILL mode or [2] DEMONSTRATION mode.

IBM users may also choose [3] PICTURE MENU mode to practice Learning Units one at a time. (In this mode, the drill continues until you press [ESC].)

After selecting the desired mode, press [Ø] to return to the Master Menu.

## [2] Add/Change Learning Sequence



This selection lets you set up the order in which the learning units are presented. Press [2] on the Master Menu and the Learning Sequence Menu appears. [1]on the Learning Sequence Menu allows you to add units not already included in the sequence; [2] lets you remove units from the learning sequence; [ $\varnothing$ ] on the Learning Sequence Menu returns you to the Master Menu.

The current sequence of learning units is listed on the right side of the screen. The bracketed numbers to the left of this list indicate the current order in which the units run.

To add a unit to the sequence, press [1] ADD UNITS. The units not included in the sequence are listed on the left side of the screen. Press the number key corresponding to the unit you want to add to the sequence. Repeat this procedure to add additional units. To return to the Learning Sequence Menu, press [ $\varnothing$ ].

To remove a unit, press [2] REMOVE UNITS; then press the number key corresponding to the unit you want to remove. Repeat this procedure to remove additional units. If, for example, you want a student to work only with [1] BLOCKS and [2] CIRCLES, you must remove the other learning units. To return to the Learning Sequence Menu, press [ø].

After you have completed adjusting the learning sequence, press [Ø] to return to the Master Menu.

## [3] Trials Per Unit

This selection lists the units in the order in which they appear in the lesson and the number of problems presented in each unit. The pre-set number of questions per unit is 2 .

To change the number of problems per unit press [3] on the Master Menu; then press [RETURN] until the cursor advances to the name of the unit you want to change. Enter the desired number of problems ( 2 to 99 ). If you enter a single digit number of trials, press [RETURN] after your adjustment. After pressing [RETURN] for the last unit shown, you automatically return to the Master Menu.

## [4] Change Learner

This option lets you add the name of a learner to the system. You must identify a student, using this option, before any of the
lessons can begin. After pressing [4] on the Master Menu, type in the student's first name and press [RETURN]. Now type in the last name. Press [RETURN] after the last name is entered to return to the Master Menu.

## [5] Scoreboard

The scoreboard lists the number of correct and incorrect answers entered by the student in each of the learning units. To erase the scores, press [ $\mathbf{Y}$ ] in response to Do you want to zero scores ( $\mathbf{Y} / \mathbf{N}$ )? To save the scores press [ $\mathbf{N}]$ and you return to the Learning Manager Master Menu.

## [6] Run Introduction to Counting

To begin the lessons, press [6] on the Master Menu. When the title page appears, press [1]. You can press [0] to exit the program.

When the last unit in the sequence is completed, the title page reappears. Before you continue the program, you'll need to go back to the Learning Manager Master Menu and enter a new learner name. To do this, press the RIGHT ARROW key. (Atari users press [SELECT] and [OPTION] at the same time.)

## [7] Turn Sound On/Off (IBM Users Only)

The top line of the Learning Manger Master Menu indicates whether the sound is ON or OFF. To change this option, press [7] on the Master Menu.

## [Ø] Exit

Press [ $\%$ ] to End the program.

## THE EIGHT LEARNING UNITS

Learning often proceeds from the concrete to the abstract. This program takes advantage of that principle by pairing objectscircles, triangles, and squares-with numbers. Working with Introduction to Counting's lessons, the student becomes familiar with simple numbers, addition, subtraction, length, weight, height, and shape discrimination.

Introduction to Counting has been designed so that this learning experience for the young child is structured by a parent or teacher. When the assigned learning unit is completed, the program does not allow the student to continue on his own. You have the opportunity to review the child's scores and then assign the next appropriate learning unit.

This design feature prevents the frustration that often accompanies the attempt to master a concept for which the child does not have the prerequisite skills. Introduction to Counting allows you to define and control the sequence in which the child receives instruction.

Special care is given to reward correct answers with smiling faces and simple melodies. Each learning unit features a large face in the upper right corner of the screen and two smaller faces, one smiling and the other frowning, in the lower right corner. A correct answer to a problem causes the large face to smile, and a simple tune to play. An incorrect answer makes the large face frown and a buzzer sound. A tally of the correct and incorrect answers appears under the small faces.

To interrupt play during any of the lessons, press [ESC]. At the next session, press [1] and the program takes you back to the location at which the previous session ended. After all of the units in the drill are completed, the title page reads Introduction to Counting completed.

## Blocks

Three boxes, each containing an assortment of blocks, appear on the left side of the screen. On the right side, a numeral from 1 to 9 , appears. The student picks the box in which the number of blocks matches the numeral.


To select a box the child presses [SPACE BAR] to move a check mark from box to box. When the check mark is in the appropriate box, the student presses [RETURN] to enter his choice.

## Circles

Circles bounce through a series of ramps and land in a container. When the final circle bounces into the container, a question mark appears. The student types the numeral which corresponds to the number of circles in the container. A screen photograph appears on page 14 .





vill?




## Shapes

Twenty-five shapes (squares, triangles, and circles) appear on the screen. One kind of shape is identified and displayed next to a question mark on the right side of the screen. The student counts the number of shapes that match the one on the right side of the screen, and then types in the correct answer.

## Height

A water glass, a faucet, and a ruler appear on the screen. Water runs out of the faucet filling the glass to a height marked by the ruler. The student types in the number that corresponds to the height of the water.


## Weight

A balance is shown with squares stacked on its pans. The pans are held in a balanced position by a safety catch. The student determines which pan is heavier by comparing the number of squares in each.

To select an answer the student presses [SPACE BAR] and a balance with a set of empty pans appears at the bottom of the screen. By pressing [SPACE BAR] again the position of the bottom set of pans can be changed. Press [SPACE BAR] until the pans are in the correct position. Show how the upper balance would look if the safety catch was released. After the second set of pans is properly positioned, the student presses [RETURN] to enter his answer.


## Length

Five vertical bars of various lengths appear on the screen. The student identifies the bars with the appropriate number to indicate shortest to tallest ( 5 for the tallest and 1 for the shortest).

The student presses [SPACE BAR] and an entry square appears beneath the bar on the left. He then presses the number key that identifies the bar's position in height order. The [SPACE BAR] moves the entry square to the next bar. This procedure is repeated to identify the remaining bars. An incorrect entry can be corrected by moving the entry square beneath the bar and typing the correct
numeral. When all the bars are identified, the student presses [RETURN] to see his results.


## Addition

Simple addition problems are presented in numerical and pictorial form. Two sets of squares and the numerals corresponding to those squares are displayed. Sums range between 2 and 9 . The student enters his answer with a single numeral keystroke. A screen photograph appears at the top of page 18 .

## Subtraction

Simple subtraction problems are presented in numerical and graphic form. Two sets of squares and the numerals corresponding to those squares are displayed. Differences range between 1 and 8 . The student enters his answer with a single numeral keystroke. A screen photograph appears at the bottom of page 18.

|

$$
6+2=?
$$



[10

$$
3-2=?
$$



## KEY EQUIVALENTS CHART

You may use different computer keys than those referred to throughout this manual. Please check this Key Equivalents Chart to find out which keys you should use.

| Manual <br> \& Apple | IBM | Atari |  |
| :--- | :--- | :--- | :--- |
| RIGHT <br> ARROW <br> $[\rightarrow]$ | RIGHT <br> ARROW <br> $[\rightarrow]$ | [SELECT] + <br> [OPTION] | Used to get to the <br> Learning Manager <br> from title page. |
| Press [1] | Press [1] | [START] | Used to start program <br> when on title page. |
| [ESC] | [ESC] | [ESC] | Used to interrupt play <br> during lessons. |
| [RETURN] | $[\leftarrow]$ | [RETURN] | Used to enter <br> a choice. |
| [SPACE | [SPACE | [SPACE | BRed to move to <br> BAR] |
| an answer. |  |  |  |

## TROUBLESHOOTING

Before attributing a problem to defective software, please consider the following:

Did you follow the correct procedure? Check the manual to make sure you took the correct steps.

Loading errors? If the computer gets an "I/O" error or does not load the program properly, unlatch the disk drive, slide out the disk and then slide it back in as far as possible. Reclose the latch. If the problem remains, insert a disk that you know works properly. If this disk doesn't work either, your drive may be the problem.

Do not write protect the disk. File writing occurs during use of the program; do not place a Write Protect tab on the program disk.

## Apple computers only:

Upper case characters? This program only recognizes commands in upper case characters. If your Apple II or Apple II+ has been modified to provide both upper and lower case capability, disconnect the modification so your keyboard is locked in the upper case position - or press the shift key before typing commands.

Cap lock down? For both the Apple IIe and Franklin Ace 1000, the [CAPS LOCK] must be in a down position before this program will recognize commands.

Controller card installed? A 16-sector Controller card must be installed in slot \#6 of your computer for the program to work properly. (This does not apply to Apple IIc.)

Integer Basic Card? If an integer BASIC firmware card is installed in your Apple II+, you must remove it before you can run this program.

Still having trouble? Call our Customer Service Representative at (415) 546-1937.

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# Introduction to Counting 

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