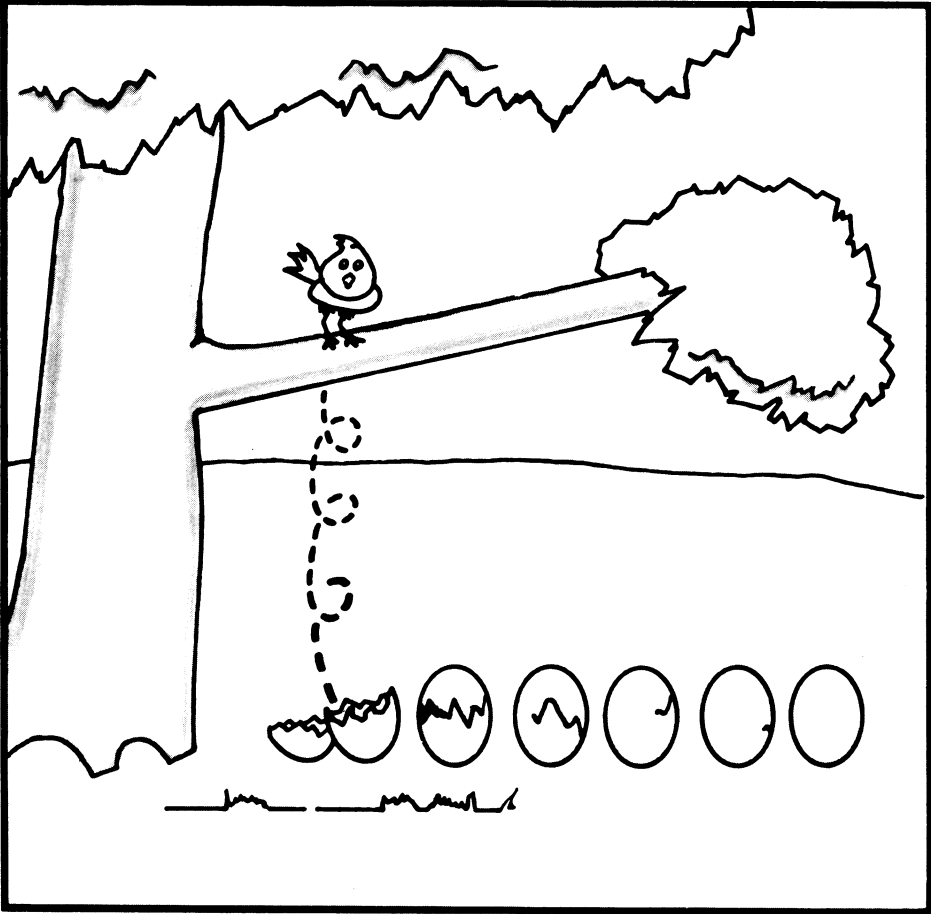# microSubtraction

## Introduction

The color, tunes, and animation in **microSubtraction** make learning subtraction lots of fun. **microSubtraction** teaches you the values of numbers, shows you how to subtract, quizzes you on the subtraction you have learned, and has a calculator that can help you correct your math homework.

**microSubtraction** has four options. In option one, birds show you the values of the numbers one through nine. Option two asks you to count birds you see on the screen. Option three uses colorful balloons to explain single-digit subtraction. Option four gives you a quiz on single and double-digit subtraction and lets you use the **microSubtraction** calculator to get answers to your subtraction problems or check your homework.

## Ages: 4–10

## Required Hardware

**Tape Version:** Atari 4/8/1200 with 16K RAM, Atari BASIC Language Cartridge, Atari 410 Program Recorder.

**Disk Version:** Atari 8/1200 with 24K RAM, Atari BASIC Language Cartridge, Atari 810 Disk Drive.

## Making Back-up Copies

For your convenience, your **microSubtraction** program has not been copy protected. We suggest that you follow the instructions in your Atari reference manual to make a back-up copy of the program for your personal use.*

## Directions

### Tape Version

1. Be sure your computer is turned OFF.

2. Insert the BASIC Language Cartridge into the computer's cartridge slot.

3. Insert the **microSubtraction** tape into the program recorder's cassette holder. Press REWIND on the recorder until the tape rewinds completely, then press STOP.

4. Turn on the computer and the TV or monitor.

5. Using the computer's keyboard, type CLOAD then press RETURN.

6. Press PLAY on the program recorder, then press RETURN on the computer's keyboard. Please wait 5 minutes for the program to load.

*Note: Please remember that this program is copyrighted material. Making copies for any purpose other than your personal use is illegal and unethical. We at Hayden Software recognize that it is especially important to you to have a convenient and inexpensive means of obtaining back-up copies of software which will be handled by young children. We ask in return that you cooperate with the intention of this policy by making copies only for your family on the computer for which the program was purchased.

7. When the word READY appears on the screen, STOP the recorder. Type RUN on the keyboard and press RETURN.

## Disk Version

1. Be sure your computer is turned OFF.
2. Insert the BASIC Language Cartridge into the computer's cartridge slot.
3. Turn on the disk drive.
4. When the busy light on the disk drive goes out, open the drive door. Insert the **microSubtraction** disk with the label in the lower right-hand corner nearest you. Close the door.
5. Turn on the computer and your TV or monitor. The program will load and run automatically.

The title screen now appears. In a few moments, the menu showing your game options will be displayed on the screen. Choose an option by typing its corresponding number.

# Game Options

1. Birds
2. Numbers
3. Subtracting balloons
4. Subtracting numbers

## 1. Birds: Number Values

To see number values, type "1" when the menu is displayed on the screen.

Nine eggs lying on the ground and the message HOW MANY BIRDS TO HATCH? appear on the screen. Type in any number (from 1–9) of birds you want to see hatch. One by one, the eggs break and birds fly up into the air. Each bird is counted by a number appearing under it.

After the flock of birds is correctly counted, the exercise is repeated. The eggs and message appear again. Choose any number you wish and that number of birds hatch, fly up, and are counted for you.

You are shown how many birds a number stands for. You can see for yourself whether 7 is more or fewer than 4.

When you want to stop playing BIRDS, just press the RETURN key. The menu appears on the screen and you may choose another option.

## 2. Numbers: Counting

To practice counting, type "2" when the menu is displayed on the screen.

A number of birds appear on mailboxes with the message HOW MANY BIRDS ON THE MAILBOXES?. Count the birds and then type the number you think there are. If you are right, a joyful melody plays! A wrong answer produces a mournful tune, but you get two more chances. If you still don't count the birds correctly, that's okay; the computer shows you the right number.

When you wish to stop playing NUMBERS, just press the RETURN key. The menu appears on the screen and you may choose another option.

## 3. Subtracting Balloons

To see how to subtract, type "3" when the menu is displayed on the screen.

The message HELP WITH BALLOONS? appears on the screen, asking you if you wish to play with or without extra help. If you type "Y",* a problem like the following one is displayed on the screen. Note that the correct number of balloons appear in the answer.
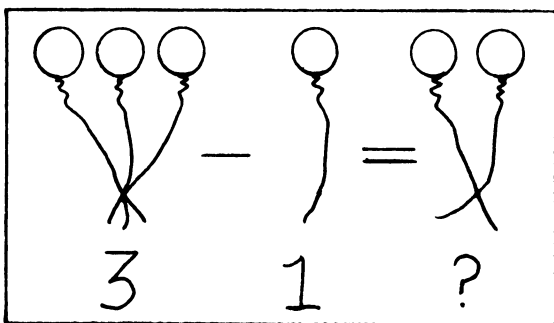


*Note: The (CAPS/LOWR) key must be in the up position when you type "Y" or "N".

If you type "N" in response to the message
HELP WITH BALLOONS?, a problem like the
following one is displayed on the screen. Note
that no balloons appear in the answer.
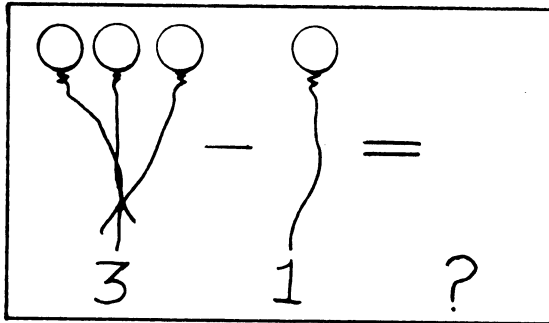


Whether you type "Y" or "N", when you give
the correct answer, a merry tune is played. An
incorrect answer produces an unhappy tune, but
you get two more chances. The correct answer is
given if you still don't get it.

When you wish to stop playing SUBTRACTING
BALLOONS, just press the RETURN key. The
menu appears on the screen and you may choose
another option.

## 4. Subtracting Numbers

To take a subtraction quiz or use the
**microSubtraction** calculator, type "4" when the
menu is displayed on the screen. The message
QUIZ OR CALCULATOR? appears.

## Quiz

If you choose to take a quiz, type "Q" in response to the message QUIZ OR CALCULATOR?.* A subtraction problem and two eggs appear on the screen. The "^" symbol on the screen shows which digit you are to type in.

If your answer has more than one digit, digits must be entered from right to left, beginning with the units' digit.

For example:

$$
\begin{array}{r} 33 \\ -18 \\ \hline 5 \end{array} \quad \rightarrow \quad \begin{array}{r} 33 \\ -18 \\ \hline 15 \end{array}
$$
$$\quad\; \wedge \qquad\qquad\quad \wedge$$

If you type the "1" first, the computer counts your answer as wrong.

When you answer correctly, a cheerful tune plays and a bird hatches out of the left egg. If you answer incorrectly, a sad tune plays, a bird hatches out of the right egg, and you are given the correct answer.

The computer tallies your right and wrong answers on the screen as you take the quiz. The problems get more difficult as you play.

When you are finished with the quiz, press the RETURN key. You are then given your final score. In a few seconds, the menu reappears.

*__Note:__ The (CAPS/LOWR) key must be in the up position when you type "Q" or "C".

## Calculator

If you decide to use the **microSubtraction** calculator, type "C" in response to the message QUIZ OR CALCULATOR?. Instructions appear at the bottom of the screen.

Enter a number with as many as 5 digits (any number from 0 through 99,999). Press the space bar. Then enter the number you want to subtract from the first number you entered. This number may also have as many as 5 digits, but must be less than the first number. Press the space bar, and the **microSubtraction** calculator gives you the correct answer. (If the second number you entered is greater than the first, a series of X's appear.)

Press the ESCAPE key to begin a new subtraction example. Use the **microSubtraction** calculator to check your homework!

When you are finished using the calculator, press the RETURN key to return to the menu.

**Don't Forget**

Whenever you wish to return to the menu to try another option, press the RETURN key.

If your answer is 10 or more, you must enter the digits from right to left. If your answer is 27, type "7", then type "2". Actually, you work this way when you subtract using paper and pencil.

If you have the disk version of **microSubtraction,** make sure the red busy light on the disk drive is off before you remove the disk.

Now that you're a super subtracter, try the rest of the **microMath** series. In **microAddition,** apples teach you how to add. In **microMultiplication,** bunnies help you learn the times tables. In **microDivision,** fish show you how to divide. All of them are fun!

# HAYDEN SOFTWARE

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