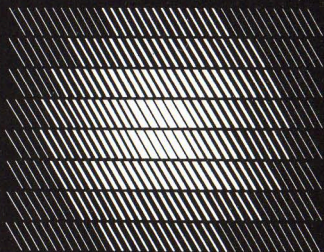


 **VideoBrain™**

Family Computer
Cartridge Program
Instructions



Education

Lemonade Stand
ED06

For best results,
read this brochure before
using cartridge

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Lemonade Stand — A Business Simulation

Education Cartridge

- decision-making simulation based on the operation of a simple neighborhood business
- four skill levels, from beginning to advanced
- for one to three teams

**FOR BEST RESULTS, READ THIS BROCHURE
BEFORE USING CARTRIDGE**

Lemonade Stand Introduction

You're about to manage your own lemonade stand. Can *you* deal with the pressures of supply and demand while coping with such business factors as competition, price increases and thunderstorms? Your objective in Lemonade Stand is to make your stand profitable enough to parlay your \$2.00 in starting assets into \$10.00 or more.

Lemonade Stand is a computerized simulation of real world business experiences. The VideoBrain will give you rational and consistent sales results based on your input—not random responses. Generally if you make the same decision on Day 2 as Day 1, you will get identical results—except when special events or competitive action by other stands intervene.

The program can be operated on four levels of difficulty—challenging adults to sharpen their business judgments, while teaching children basic business and economic principles.

Lemonade Stand was adapted by VideoBrain and Joanne Koltnow Ver Planck from SELL LEMONS, one in a four-part series of economic simulation games produced by the Minnesota Educational Computing Consortium (MECC). The MECC series was inspired by MARKET, an advanced economic simulation, produced by the National Science Foundation and funded by the Huntington II project at SUNY Stony Brook.

Until now, simulations such as Lemonade Stand have only been available on very large computers. Today your VideoBrain can handle them—and there are more exciting simulations coming soon.

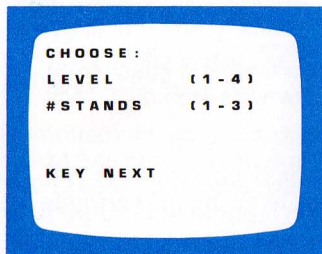
Inserting The Cartridge

1. Make sure your VideoBrain computer is attached to your TV as described in the Owner's Manual. Check that power is on.
2. Push the cartridge carrier release button above the VideoBrain keyboard in order to swing the cartridge carrier door up.
3. With the label facing up, slide the cartridge all the way into the tracks suspended from the cartridge carrier door.
4. Gently push the cartridge door down into the computer until it locks.
5. Push the *Master Control* button. The title of the cartridge should appear on your TV for two seconds.

Operating The Program

Selecting Level and Number of Stands

After two seconds, the title display on your TV screen will change to look like this:



Type in the number of your skill level choice and the number of stands corresponding to the number of players or teams of players. *Everyone* should get the hang of Level 1 before moving on.

The four levels are summarized as follows:

LEVEL 1: Beginner

Level 1 is set so it's easy to make money. It teaches the relationship of price and volume without introducing advertising.

LEVEL 2: Intermediate

In Level 2 it's harder to make money until you discover how to use advertising. Be aware that the effect of advertising is harder to figure out than the effect of pricing.

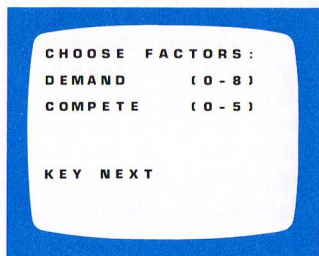
LEVEL 3: Advanced

Level 3 introduces true competition. The sales at each stand are effected by the sales at the other stands. Players make the same decisions as before

on glasses produced, price charged, and signs purchased, but they must now adapt to competitive effects. In Level 3 you might consider asking your opponents to look away while you make your decisions—otherwise they can underprice you and steal your customers!

LEVEL 4: Expert

At this level the players determine how much effect competition will have in each game and also how hard the game will be. Players—in addition to making decisions on glasses produced, selling price, and advertising—can now decide on the degree of competition and demand for the product. For Level 4 only the screen below will follow the “Choose Levels and Stands” screen:



The higher number you select for the demand factor, the harder it will be to make money. The higher the compete factor, the more effect your sales have on driving down your competitor's.

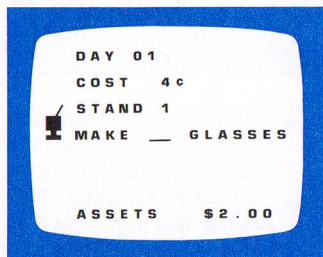
Players decide on demand and competition levels and key in the numbers of their choice. In Levels 2 and 3, VideoBrain randomly selects a demand factor of 5, 6, 7, or 8 at the beginning of each game. Key NEXT after entering Level 4 factors.

While the first level is suitable for beginners of all ages, the third and fourth levels will keep three Harvard MBAs scrambling to master the business for months.

Entering Your Daily Decisions

Note: The first time you use the program you should experiment with entering numbers casually to see how it works before going on to think about making money.

Once you've chosen the level and number of stands (and factors if in Level 4), the next screen you see will look like this:



The computer is now ready for Stand 1 to type in the number of glasses to make. You *must* enter 2 digits; so if you want to make 6 glasses, you must type in 06, not just 6.

The horizontal line between “Make” and “Glasses” is a cursor and it marks the place where the next digit you type will go. Notice that you can’t make more than 50 glasses on Day 1 because glasses cost 4¢ each and the money you have (assets) is only \$2.00.

If you change your mind or make a mistake, you should key BACK until the cursor is under the digit you want to change and then type the new digit. You must enter digits to move the cursor forward so you’ll retype over any digits you entered after the one you changed.

Once you've entered the 2 digits for glasses made, the next line will ask you to fill in how many advertising signs you want to buy. Signs cost 15¢ each. Two digits are required again. In Level 1, the line for advertising does not appear and you go right on to type in the price you want to charge.

Type in the price you want to charge and key NEXT. The bottom line now changes from showing your assets to showing your expenses. Key NEXT again to move on to the next stand or to learn how many glasses you sold.

If you try to make more glasses or buy more signs than your assets will allow, the computer will display OVERSPENDING in place of your expenses. Key NEXT and the computer will let you enter new decisions.

How Well Did You Do?

After the last stand's turn, key NEXT and a new screen will show the results for Day 1, one line at a time, beginning with the number of glasses MADE by each stand. Key NEXT and it shows the number of SIGNS purchased. Key NEXT and it shows the PRICE each stand charged per glass. Key NEXT and it shows the number of glasses SOLD by each stand. Key NEXT and it shows the total dollar SALES for each stand. Key NEXT and the screen shows you your profit. (If a stand has lost money, this is indicated here with a minus sign and the loss amount.)

If a stand's sales or profit figures are over \$9.99 or show a loss of \$1.00 or more, an asterisk will appear instead of the figures. When you see an asterisk and key NEXT, the sales or profit figure will appear at the bottom in black. Negative numbers are shown with the minus sign after them (e.g., \$1.25-).

Now key NEXT again and a new screen will show the new asset figures for each stand with the profit each made added in. This screen will also say which stand has the highest assets. If the stands have equal assets, Stand 1 gets the benefit of the doubt.

Key NEXT to go on to the next day or if you're ever in doubt as to what comes next.

The same process as for Day 1 is repeated throughout the succeeding days—occasionally made more dicey with the occurrence of special events that influence sales—until one stand reaches a \$10.00 total. This stand is declared a winner with an end-of-game screen and fanfare music.

To start over, press MASTER CONTROL.

Strategy: Things To Be Aware Of

Changes in the cost of production occur, just as in real life. Players must keep alert for this possibility so they don't sell their lemonade for less than they paid to make it.

Special events occur which effect sales. Some of them are forecast (“Heat wave coming”); one comes unexpectedly (thunderstorm). Some are good, resulting in extra sales; others are bad, causing the player to lose money. Players who take note of the predictions and learn the exact effects of the events will gain an advantage in the game.

The special events are:

- Circus coming—when accompanied by a parade (an Elephant Walk across the screen)—good.
- Circus but no parade—bad.
- Heat wave coming—good.
- Rain coming—bad.
- Thunderstorm (a flash of lightning as an umbrella pops on the screen)—very bad.

Certain restrictions are imposed in the game. Players may not spend more money than they have in assets; production may not exceed 99 glasses at a given stand; price charged for lemonade may not be more than 99¢.

Bankruptcy occurs when a stand’s assets are less than the cost of one glass of lemonade and that stand is dropped from play.

Strategy: Things To Think About

Successful Lemonade Stand operation requires a little luck (even the most careful player can be wiped out by a thunderstorm) and a lot of concentration on selling trends. In order to play well, Lemonade Stand managers should take note of what happens at all of the stands, since one player's successful combinations of price and advertising can be used by any player who remembers what it was. Written records will help players see patterns in the relationships among the factors in the game.

Since the daily record of results is not stored on the screen, players should copy the chart printed on the next page and keep their own records of decisions and results.

DAY/STAND (e.g. 3/2 = Day 3, Stand 2)							
NO. OF GLASSES MADE							
COST							
NO. OF SIGNS							
COST							
TOTAL EXPENSES							
PRICE CHARGED							
SPECIAL EVENTS (CIRCUS, ETC.)							
NO. OF GLASSES SOLD							
DOLLAR SALES							
PROFIT LOSS							

Strategy: Questions For Investigation

Here are some questions you might want to investigate to improve your profitability.

1. A lower price means more sales but it also means less profit per sale. What price will give you the most profit? If the cost per glass that your stand has to pay changes, should you change your price to make more profit?
2. How important is it to make a good guess of how many glasses you will sell? What is the effect on profits of glasses you make but don't sell? If your price is low enough to sell 25 glasses, but you only made 18, are you making as much money as you could?
3. If you hold your price steady and change the number of advertising signs you buy from day to day, what is the effect on how many glasses you sell? If signs cost 15¢ and you make 8¢ profit on every glass you sell, how many extra glasses do you have to sell to justify buying a sign?
4. Which will make a bigger increase in the number of glasses you sell—lowering your price 2¢ or buying one more sign? Be careful—the answer changes depending on what level you're in and what price and advertising level you started with.
5. What is the effect of competition? If two stands have the same advertising and price on Day 1 (and have the same results), what happens to Stand 1's volume the next day if he makes the same decisions but Stand 2 lowers price and gets more volume?

6. In Level 4, if you set the demand factor to 8 and the compete factor to 5, and each stand tries as hard as possible to do better than his competitors, will anybody win or will they drive each other into bankruptcy?
7. What should be your strategy for a normal day (no special events)? How about during a heat wave or when it is cloudy and cool? The circus is tricky—how can you protect yourself and maximize profit at the same time?

Learning From Lemonade Stand

Why use a simulation? The advantage of simulating a situation is that “aspects of the situation” can be “manipulated” repeatedly without affecting the real situation in any way. Simulations are powerful teaching tools, for they can simplify complex, distant, costly, or dangerous situations and bring them into the home or classroom setting in a non-threatening form.

Introducing Lemonade Stand to children. The simulation can be introduced by saying “In this game, you’re going to be managing a neighborhood lemonade stand. You will have some money to start with (called assets) which you spend on making your lemonade. You have to decide how many glasses to make, and what price to charge for each glass. If your stand makes money, your assets increase; if it loses money, your assets decrease. You make fresh lemonade each day, and you can’t use any lemonade that is left over from an earlier day. The computer will ask each manager for all the decisions for one stand before it goes to the next stand.”

At this point, the new players might play through one day as a group to get accustomed to the terms used by the computer.

The amount of actual help given to the players should be determined on an individual basis. (Most children don't need any help once they understand how the simulation works. Adults should allow children to explore freely various strategies.)

Educational aspects. The Lemonade Stand simulation allows a child or adult to "sell lemonade" alone in the family room; it provides a classroom group with a situation in which to gain practice in the principles of economics without leaving the school. By "experiencing" a business situation, Lemonade Stand players become familiar with the economic concepts of production and marketing: price, profit, loss, assets, supply, demand, competition, advertising, bankruptcy, and expenses.

The simulation encourages accurate record-keeping and provides practice in individual and group decision-making. It can form the basis for discussions on strategy formation as players explain the reasons for their choices.

Lemonade Stand can offer practice in arithmetic, also. Players can compute the production expenses before the computer displays them, or predict how much profit would be shown if all (or only half) the glasses made were sold. Players can also compute the number of sales that would be necessary for a stand to achieve a break-even financial situation on a particular day.

The simulation provides preparation for a discussion of elementary economics. Players can explore the effects of price by playing with a fixed number of advertising signs. They can explore the effects of advertising by assigning a fixed selling price. The questions posed under the Strategy section of this brochure can also serve as good teaching tools.

At the expert level, manipulation of the competition and demand constants allow the players to see how these factors can affect profit and loss in the model chosen. This can lead to a discussion of the model used in the game, of instances where another model might be appropriate, and the use of simulations in general.

Beyond Lemonade. Lemonade Stand is a relatively simple model of a very small business. Nonetheless, it has some important similarities with other businesses.

The fresh food business is like Lemonade Stand because you lose money on food you have but can't sell—frequently you can't keep it to sell the next day. In the fresh fish business, though, you'd usually lower your price late in the day so you'd sell everything. The diamond business is very different—if you don't sell your diamond today, you can sell it tomorrow or 50 years from now.

The high-fashion business is like the circus coming to town every day. If you do well, you'll wish you made more dresses or priced them higher. If you do poorly, you can do very poorly. In high fashion, though, customers decide who to buy from on the basis of personal preference rather than price and advertising. In Lemonade, all lemonade glasses are assumed to be identical and price and advertising make all the difference.

The semiconductor components business is like setting the compete factor to 5. One difference is your cost would start very high and come down throughout the contest. Also, if you invented a new kind of component nobody else had, you could make a bundle.

You can think of more examples on your own. How are they similar or dissimilar to Lemonade Stand?

The Model

The part of the Lemonade Stand program that takes all your inputs and determines how many glasses you sold is called the "model." Though the model is rational and consistent, we've made it tough to figure out. If you like to find out how things work, you'll probably enjoy experimenting with the Lemonade Stand model. If you'd like to check your theories (or if you're just curious), send \$2.00 and a stamped self-addressed envelope to Lemonade, c/o VideoBrain. We'll send you an explanation of how the model works!

Lemonade Stand is just one of many exciting cartridges brought to you by VideoBrain Computer Company. We suggest that you try these others to entertain you, educate you, or help you around the home:

Money Management

- VB-59 The Programmable™
- VB-81 The Financier™
- VB-1000 Money Manager™
- VB-1100 Budget System
- VB-1200 Information Manager

Communication

- CM01 Timeshare

Education

- ED01 Music Teacher 1
- ED02 Math Tutor 1
- ED03 Wordwise™ 1
- ED04 Wordwise™ 2
- ED05 VideoArtist™
- ED07 Musicianship 1
- ED08 Number Cross™
- ED09 Historical Simulation —
 France in the Old Regime

Entertainment

- EN01 Gladiator
- EN02 Pinball
- EN03 Tennis
- EN04 Checkers
- EN05 Blackjack
- EN06 Vice Versa
- EN08 Music Programmer
- EN09 Programmable Football

Limited 90-Day Warranty on Lemonade Stand Cartridge:

For 90 days from the date of purchase, VideoBrain Computer Co. will repair any defect in material or workmanship in this Cartridge free of charge.

To obtain warranty service, return the Cartridge post-paid, with sales receipt showing date of purchase, to the VideoBrain Service Center with address shown below.

Under no circumstances will VideoBrain Computer Co. be liable for any special, incidental, or consequential damages resulting from use or possession of the VideoBrain or its accessories. However, some states do not allow the exclusion or limitation of incidental or consequential damages, so that the above limitations or exclusions may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

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