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AUTHOR Koeninger, Jimmy G.
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ABSTRACT

The decision-making game is built on a model which adheres to the economic principles of supply and demand. Game participants are faced with the task of generating profit in a simulated competitive situation. The game provides the opportunity for participants to gain a greater understanding of: (1) the relationship between income and costs and resulting profit, (2) the complexity of the buying process, and (3) the income statement. An instructor's guide, worksheets for game players, and teacher information forms are included in the manual. (VA)

THE MERCHANDISING GAME

By

Dr. Jimmy Koeninger
Oklahoma State University
Stillwater, Oklahoma

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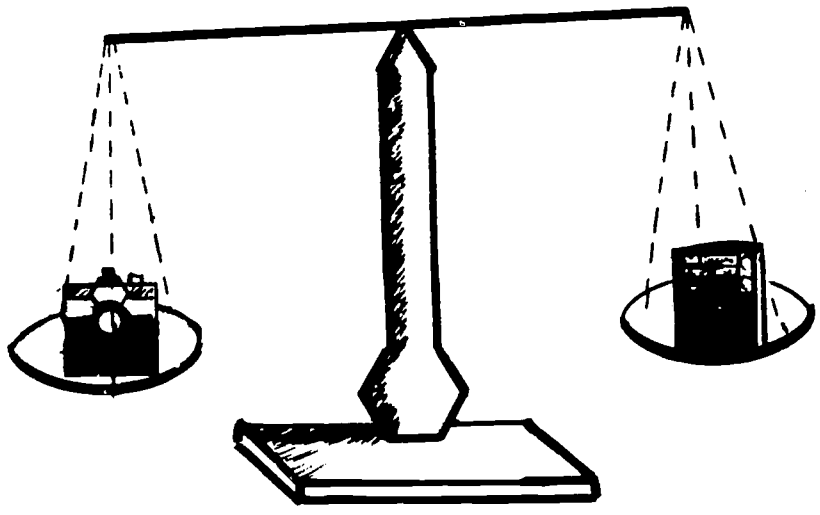
INSTRUCTOR'S GUIDE

PURPOSE

In this game participants will be provided the opportunity to purchase merchandise, select the number of salesmen needed to sell the merchandise, and establish the retail price which will be charged for the merchandise. If appropriate decisions are made by the merchandising team, profit will be generated.

It is also the purpose of this game to introduce the participants to the economic concept of supply and demand. In considering the supply and demand function which operates in our economy, the lower the price of the product, the greater the number of units that will be sold. Conversely, the higher the price, the less the number of units that will be sold. The model on which the game is based adheres to this economic principle.

Since the participants are confronted with the task of generating profit in a competitive situation, the participants will gain a greater understanding of the relationship between income and costs and resulting profit; the complexity of the buying process with regard to anticipating the economic situation, customers, and competitors; and the income statement.



PROCEDURE

For suggestions in using the Merchandising Game as well as any game or simulation, the instructor should refer to the following publication:

> Koeninger, Jimmy G. "An Instructional Process for Using Simulations and Games." Using Simulations and Games in the Distributive Education Classroom. (Columbus, Ohio: Ohio's Distributive Education Materials Laboratory, The Ohio State University, pp. 15-18).

An overview of the gaming procedure follows. Read it through, read the Game Information Sheets on pp. 13-15, and then read the sample game on page 6-7.

1. Divide the class into teams (three to five students per team).

2. Distribute the Game Information Sheets, and discuss the contents thoroughly (pp. 13-15).

3. Distribute and discuss the following:

   a. Management Decision Worksheet (Handout #2) -- p. 16.
   b. Income Statement (Handout #3) -- p. 17.
   c. Sales Chart (Handout #4) -- p. 18.

4. Allow the teams the opportunity to review the Game Information Sheet and the forms and discuss them. Each team should select a team leader.

5. The amount of time to be allocated will depend upon the local situation; however, more time will be needed in the initial period than subsequent periods. Approximately forty-five minutes should be allocated to the decision-making process for the first month and thirty minutes thereafter.

6. At the beginning of each month the instructor should read the Market Report (page 21) for the month.

7. Once the decisions have been made by the teams, the instructor will fill in blanks #A-6 and B-6 on the Management Decision Worksheet (Handout #2) giving the demand for cameras and radios at this price level.

8. The instructor should use the "Directions for Completing Forms" (page 9) as a guide for completing the Income Statement. The first period the entire group could fill out the income statements together with the instructor's help. After the first time the teams should be able to compute their team's figures without help.

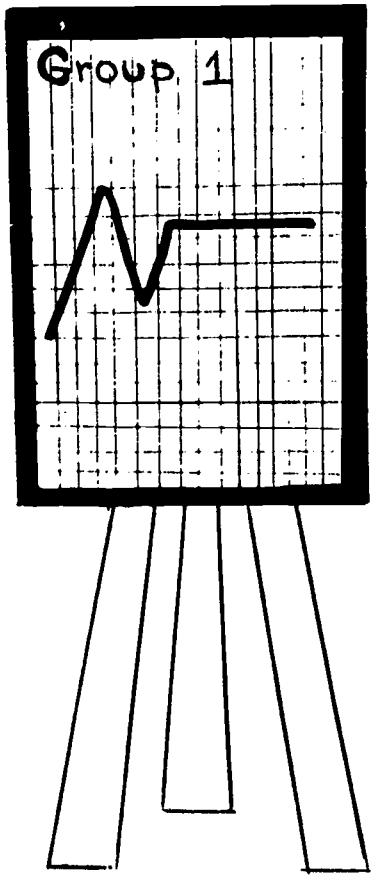
9. A group of students could be assigned as examiners to check the figures of each team, or one team could check the other.

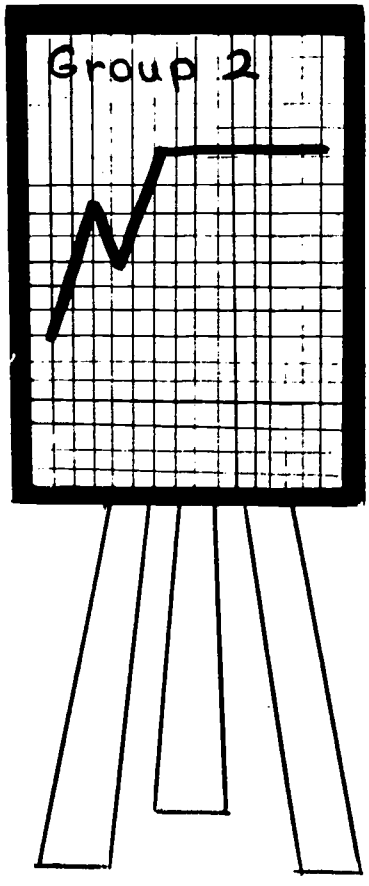
10. The instructor should post the monthly profit or loss figures on the Merchandising Team Summaries (Handout #5).

PROFIT MAXIMIZATION

To assist the instructor in determining the most profit which can be made for cameras and radios in each month, review Teacher's Forms #6 and #7 -- "Profit Maximization Table," (pp. 26-27).

This will show that in some months no team can make a profit, and the point is to keep losses to a minimum. This is part of what the students will learn about the law of supply and demand.





MATERIALS

The following quantities of materials are recommended for a class of twenty-five to be divided into five merchandising teams with five members per team.

For the Instructor:

Instructor's Guide and Supplementary Materials

For the Participants:

Game Information (Handout #1)	25 (one per participant)
Management Decision Worksheet (Handout #2)	60 (twelve per team)
Income Statement (Handout #3)	20 (four per team)
Sales Charts (Handout #4)	5 (one per team)

RESOURCE MATERIALS

Numerous materials are available to provide the instructor with content information to support the experiences included in the Merchandising Game. The following materials are suggested:

Merchandising and Buying Information

Davidson, W. R. and Alton F. Doody, Retailing Management (New York: Ronald Press Company), Third Edition.

Koeninger, Jimmy G., The Retail Buyer (Columbus, Ohio: Ohio's Distributive Education Materials Laboratory, The Ohio State University), 1971.

Wingate, John W. and Harland E. Sampson, Retail Merchandising (Cincinnati, Ohio: South-Western Publishing Company), Seventh Edition, 1968.

Economics

Calderwood, James D. and George L. Fersh, Economics for Decision-Making (New York: Macmillan Publishing Company, Inc.), 1974.

SAMPLE GAME

For purposes of explaining how to fill in the forms for the game, we will assume that this is the Jets team and use their decisions for the month of January.

I -- Read Handout #1, "Game Information."

II -- Handout #2, "Management Decision Worksheet."

1. You decide to order 2,000 cameras and 1,000 radios. Put these figures in the boxes marked A-1 (cameras) and B-1 (radios).

2. You decide to employ 15 salesmen for cameras and 5 salesmen for radios. Put these figures in the boxes marked A-2 (cameras) and B-2 (radios).

3. You decide to sell cameras for $20.00 each and pocket radios for $9.00 each. Put these figures in the boxes marked A-3 (cameras) and B-3 (radios).

   Next you will complete the cash statement on the right hand side of the page based on your decisions on the left side.

4. Your available inventory (left from the previous month) can be obtained from Handout #3, "Income Statement." It shows that you had $3,000 worth of cameras left over and $2,400 worth of radios at the end of December (line 3). Further, the game information says your predecessor ordered $27,000 in cameras and $24,000 in radios which will be available for sale in January (line 4). Thus your income statement reveals the following information on available inventory for January.

	Beginning Inventory	Inventory Received	Total Inventory
Cameras @ $15.00 -- Number	200	1,800	2,000
Cost	$ 3,000	$ 27,000	$ 30,000
Radios @ $6.00 -- Number	400	4,000	4,400
Cost	$ 2,400	$ 24,000	$ 26,400

Put the total inventory figures in the boxes marked A-4 (cameras) and B-4 (radios).

The first column (quantity) is found by dividing the total inventory cost figure (line 5 on Handout #3, "Income Statement") by the per unit cost ($15.00 for cameras; $6.00 for radios). Put the quantity in the first box and the cost in the third box. The middle box is the retail sales potential if all this inventory can be sold. Thus if the chosen price for cameras is $20.00 (A-3) and the inventory is 2,000 cameras, there is a potential of bringing in $40,000 in retail sales of cameras this month. Put this figure in the middle box of A-4.

B-4 would show a quantity of 4,400 radios available at a cost of $26,400. At the decision price of $9.00 each (B-3), the retail potential would be $39,600. These figures would be placed in box B-4 on Handout #2, "Management Decision Worksheet."

5. Next you will figure what the salesmen you hired have a potential of selling. With cameras you have hired 15 salesmen who can sell 200 cameras each. Thus the quantity under A-5 would be 3,000 cameras. The retail sales potential for this would be $60,000 (3,000 cameras @ $20.00).

   Likewise, you should figure the potential sales for pocket radios. You hired 5 salesmen this month and each can sell a maximum of 300 radios. Thus the quantity under B-5 is 1,500 radios and the sales potential for this would be $13,500 (1,500 radios @ $9.00).

6. Next your instructor will fill in the demand quantity based on the price you selected for that month. In the sample "Management Decision Worksheet" you will see that there is a demand for 2,000 cameras in January @ $20.00. Based on demand you would figure the retail potential of this demand is $40,000 (2000 X $20.00) and the cost of this many cameras is $30,000 (2,000 X $15.00). Put these figures in the boxes marked A-6. Next do the same figuring for the radios. There would be a total demand of 5,950 radios @ $9.00 which would result in $53,550 in potential sales at a cost of $35,700.

Now comes the moment of truth! You can't sell any more cameras than you have inventory, salesmen to sell, and demand. In our sample it appears we can only sell 2,000 cameras this month and that we have hired -- and must pay for -- too many camera salesmen.

Likewise, we have made a bad mistake with radios. We could have sold 5,950 radios at that price this month, but we only have 4,400 in stock and we only have enough salesmen to sell 1,500. Therefore, we will only sell 1,500 radios. Maybe next month we can do better.

Handout #2

SAMPLE

MANAGEMENT DECISION WORKSHEET

MONTH January TEAM Jets

Player Decisions

CAMERAS

Merchandise Ordered	A-1: 2,000
Number of Salesmen (each can sell 200)	A-2: 15
Retail Price	A-3: $ 20.00

Cash Statement

	Quantity (1)	Retail $ (2)	Cost @ $15 (3)
Available Inventory	A-4: 2,000	A-4: $ 40,000	A-4: $ 30,000
Salesmen Can Sell	A-5: 3,000	A-5: $ 60,000	A-5: $ 45,000
Demand	A-6: 2,000	A-6: $ 40,000	A-6: $ 30,000

RADIOS

Merchandise Ordered	B-1: 1,000
Number of Salesmen (each can sell 300)	B-2: 5
Retail Price	B-3: $ 9.00

	Quantity (1)	Retail $ (2)	Cost @ $6.00 (3)
Available Inventory	B-4: 4,400	B-4: $ 39,600	B-4: $ 26,400
Salesmen Can Sell	B-5: 1,500	B-5: $ 13,500	B-5: $ 9,000
Demand	B-6: 5,950	B-6: $ 53,550	B-6: $ 35,700

III -- Handout #3, "Income Statement."

And now you must figure what your decisions did to your financial status.

The "Income Statement" (Handout #3) is used to compute the net profit or loss for each merchandising team. At the top of the income statement in the spaces provided identify the merchandising team and month.

Handout #2 -- Line 1 - the unit sales for the month are taken from the worksheet. Remember -- your sales are the highest figure allowed by the total demand, the inventory available, and the number that can be sold by the salesmen you hired. Choose the figures from Handout #2 using column A-4, A-5, or A-6. In this case cameras only allow sales of 2,000 and radios, sales of 1,500.

Line 2 - the total retail sales for the month are derived from Handout #2 - worksheet using the figures from the middle column of the cash statement. For example 2,000 cameras @ $20.00 will gross $40,000 in sales, and 1,500 radios @ $9.00 will gross $13,500.

Line 3 - the beginning inventory for the month of January is given (e.g. -- cameras is $3,000 or 200 units). The beginning inventory for the remaining months will be the ending inventory for the previous month which is found on Line 6.

Line 4 - inventory received in the month of January is given (e.g. -- cameras is $27,000 or 1,800 units). The amount of inventory received in months is found on the "Management Decision Worksheet," A-1 for cameras and B-1 for radios. Inventory ordered in January will not be received until February and should be recorded on Line 4 on the income statement for February even as you fill out the income statement for January.

Line 5 - Inventory available for sale is computed by adding Line 3 (beginning inventory) and Line 4 (inventory received).

Line 6 - Ending inventory is computed by subtracting Line 7 from Line 5.

Line 7 - Cost of goods sold is derived from the worksheet (handout #2) using the appropriate cost for the number of items sold.

Line 8 - Gross margin is computed by subtracting Line 7 from Line 2. This is sales minus the cost of goods sold.

Line 9 - Sales salaries are derived from A-2 or B-2 of the "Management Decision Worksheet" multiplying the number of salesmen employed times a monthly salary of $400.

Line 10 - The inventory carrying charge is computed by taking 10% of the ending inventory, Line 6, of the income statement.

Line 11 - Fixed expenses are specified in the game rules.

Line 12 - Total expenses are computed by adding Lines 9, 10, and 11.

Line 13 - Net profit is computed by subtracting Line 12 (expenses) from Line 8 (gross margin). If Line 12 is greater than Line 8, you will have a net loss.

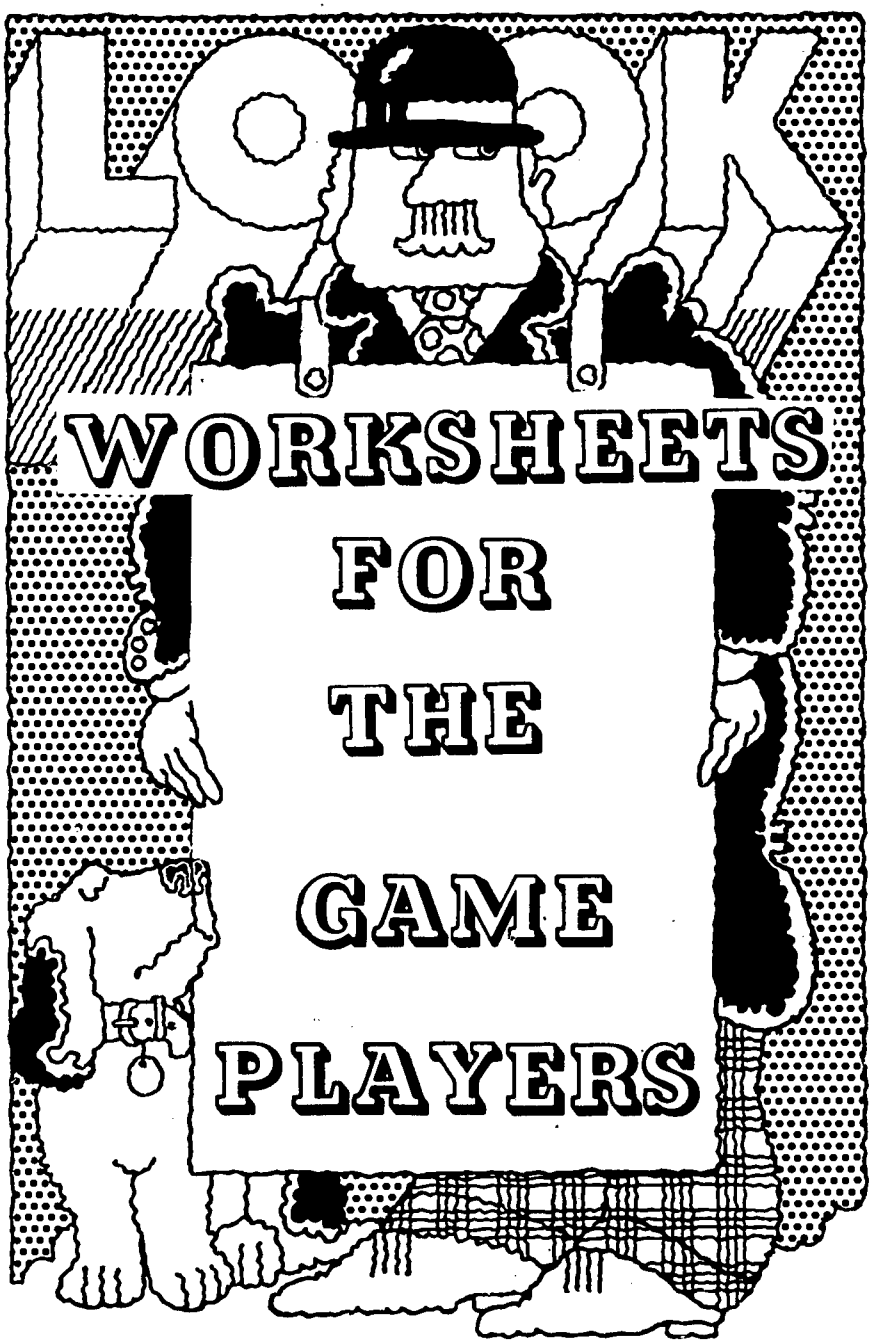
The team profits report may now be made to the group. This should be put on a class poster (handout #5). It would show that the Jets had a bad month with a net loss of $7,240.

Handout #3
SAMPLE

INCOME STATEMENT

MERCHANDISING TEAM Jets

	MONTH		MONTH		MONTH	
	PRODUCTS		PRODUCTS		PRODUCTS	
	Cameras	Radios	Cameras	Radios	Cameras	Radios
SALES						
1. Sales (in units)	2000	1500				
2. Sales (in dollars)	$40,000	$13,500				
COST OF GOODS SOLD						
3. Beginning inventory	$ 3,000	$ 3,240	0	$17,460		
4. Inventory received	$27,000	$24,000	$45,000	$ 6,000		
5. Inventory available for sale	$30,000	$26,460	$45,000	$23,460		
6. Ending inventory	—	$17,460				
7. Cost of goods sold	$30,000	$9,000				
GROSS MARGIN						
8. Gross margin	$ 10,000	$ 4,500				
EXPENSES						
9. Sales salaries @ $400.00	$ 6,000	$ 2,000				
10. Inventory carrying charge (10% of ending inventory	—	1,740				
11. Fixed expenses	$ 5,000	$ 7,000	$ 5,000	$ 7,000	$ 5,000	$ 7,000
12. Total expenses	$11,000	$10,740				
PROFIT						
13. Net profit or loss	-$ 1,000	-$ 6,240				


LOOK
WORKSHEETS
FOR
THE
GAME
PLAYERS

GAME INFORMATION

GAME OVERVIEW

You have recently graduated from college and have been searching for employment. The personnel manager at Jason's Department Store has offered you a position as an assistant buyer responsible for two departments. Each department sells only one product. As assistant buyer, it is your responsibility to make three decisions, including:

1. Determine the number of units of Speed-E Cameras and More-Tone Pocket Radios you will purchase for each month.

2. Determine the number of salespeople you will need to sell Speed-E Cameras and More-Tone Pocket Radios for each month.

3. Establish the retail price you will charge for the Speed-E Cameras and the More-Tone Pocket Radios for each month.

Since you are new to Jason's Department Store, you will be assigned to a merchandising team to make the three decisions collectively. You should review the following:

Handout #2 -- Management Decision Worksheet

Handout #3 -- Income Statement

Handout #4 -- Sales Charts

Using the Sales Charts and this game information sheet, you will make your decisions and record your decisions in the appropriate spaces on Handout #2 (Management Decision Worksheet). Deliver the Management Decision Worksheet to the gaming director who will analyze your three decisions and provide your merchandising team with the demand for your products based on the team decisions. You will then obtain Handout #3 and complete the information for the first month to determine your profit or loss. This process will be followed for each month. The winning merchandising team will be determined by the team who accumulates the greatest profit over the twelve months.

DECISIONS

DECISION #1 -- MERCHANDISE ORDER

The following information should be considered in determining the number of units you must order of Speed-E Cameras and More-Tone Pocket Radios.

1. The Speed-E Camera which costs $15.00 has been selling for $21.00. Refer to the Sales Charts for historical sales figures for the previous year.

2. The More-Tone Pocket Radio which costs $6.00 has been selling for $10.00. Refer to the Sales Charts for historical sales figures for the previous year.

3. Sales for both products are easily affected by competitor's promotional

efforts, general economic conditions, and new stores in the sales area.

4. In reviewing the Income Statement (handout #3), you will note that the previous merchandiser purchased inventory which you will receive in the month of January (Line 4). The following orders were received in January:

PRODUCT	UNITS RECEIVED
Speed-E Cameras	1,800 @ $15.00 = $27,000
More-Tone Pocket Radios	4,000 @ $ 6.00 = $24,000

Beginning inventories for the month of January can be found on Line 3 of the Income Statement (Handout 3):

Speed-E Cameras	200 @ $15.00 = $ 3,000
More-Tone Pocket Radios	400 @ $ 6.00 - $ 2,400

The amount of inventory available for sale in the month of January is found on Line 5 of the Income Statement.

Speed-E Cameras	2,000 @ $15.00 = $30,000
More-Tone Pocket Radios	4,400 @ $ 6.00 = $26,400

Remember: You can sell no more merchandise than you have inventory in stock. Even if demand was 10,000 units for January, you could sell no more than the number of units you have in stock which is 2,000 units of Speed-E Cameras. Therefore, as a result of poor ordering decisions, you would lose 8,000 units of sales.

5. Merchandise which is ordered during one month will not be received until the next month. For example, the amount of merchandise which you determine during the month of January will not be received until February.

6. At the end of each month, you will be charged a 10% inventory carrying charge on ending inventory.

7. Regardless of sales, fixed costs which will be incurred in the sale of each product are:

PRODUCT	FIXED COSTS
Speed-E Cameras	$5,000
More-Tone Pocket Radios	$7,000

Now obtain the demand for your products from the instructor. Next you will obtain Handout #3, "The Income Statement" from your instructor and with necessary help, figure your profit or loss for the month.

8. Once you have determined the number of units you will purchase in a given month for delivery in the next month, you should place your unit amounts of merchandise ordered on Line A-1 (cameras) and Line B-1 (radios) on the Management Decision Worksheet (Handout #2).

DECISION #2 -- NUMBER OF SALESMEN

The following information should be considered in determining the number of units you must order of Speed-E Cameras and More-Tone Pocket Radios.

1. Salesmen for Speed-E Cameras and More-Tone Pocket Radios are paid $400 per month.

2. Salesmen are employed for one month at a time. Therefore, you may employ as many salesmen during any month you feel is needed to cover sales.

3. Salesmen you employ to sell Speed-E Cameras can sell a maximum of 200 units. Therefore, if you estimate sales for one month will be 2,000 units, you must employ only 10 salespeople. If you employ 20 salespeople, you could sell no more than 4,000 units regardless of the size of your inventory. Remember: You can sell no more units than the number of salespeople you employ (200 per salesman for Speed-E Cameras).

   Each salesman can only sell 300 units of More-Tone Pocket Radios in a month.

4. Salesmen who sell cameras cannot sell pocket radios and vice versa.

5. Once you have determined the number of salesmen you will need in a month to sell cameras and pocket radios, you should place the number of salesmen you need on Line A-2 and B-2 and the number of cameras and radios those salesmen can sell on Line A-5 and B-5 on the Management Decision Worksheet (Handout #2).

DECISION #3 -- NEW PRICE

The following information should be considered in establishing retail prices for Speed-E Cameras and More-Tone Pocket Radios.

1. Price changes for cameras and radios must be made in even dollar amounts and within the following range:

PRODUCT	LOW PRICE	HIGH PRICE
Speed-E Cameras	$17.00	$23.00
More-Tone Pocket Radios	$ 7.00	$13.00

2. You should be aware of a basic economic principle employed in the design of this game. As prices increase, sales decrease. As prices decrease, sales increase. This is the law of supply and demand.

3. Once you have selected retail prices for Speed-E Cameras and More-Tone Pocket Radios, you should place your retail prices on Line A-3 (cameras) and Line B-3 (radios) on the Management Decision Worksheet (Handout #2).

MANAGEMENT DECISION WORKSHEET

MONTH _____ TEAM _____

Player Decisions

CAMERAS

Merchandise Ordered		A-1
Number of Salesmen (each can sell 200)		A-2
Retail Price		A-3

Cash Statement

	Quantity (1)	Retail $ (2)	Cost @ $15 (3)	
Available Inventory				A-4
Salesmen Can Sell				A-5
Demand				A-6

RADIOS

Merchandise Ordered		B-1
Number of Salesmen (each can sell 300)		B-2
Retail Price		B-3

	Quantity (1)	Retail $ (2)	Cost @ $6.00 (3)	
Available Inventory				B-4
Salesmen Can Sell				B-5
Demand				B-6

INCOME STATEMENT

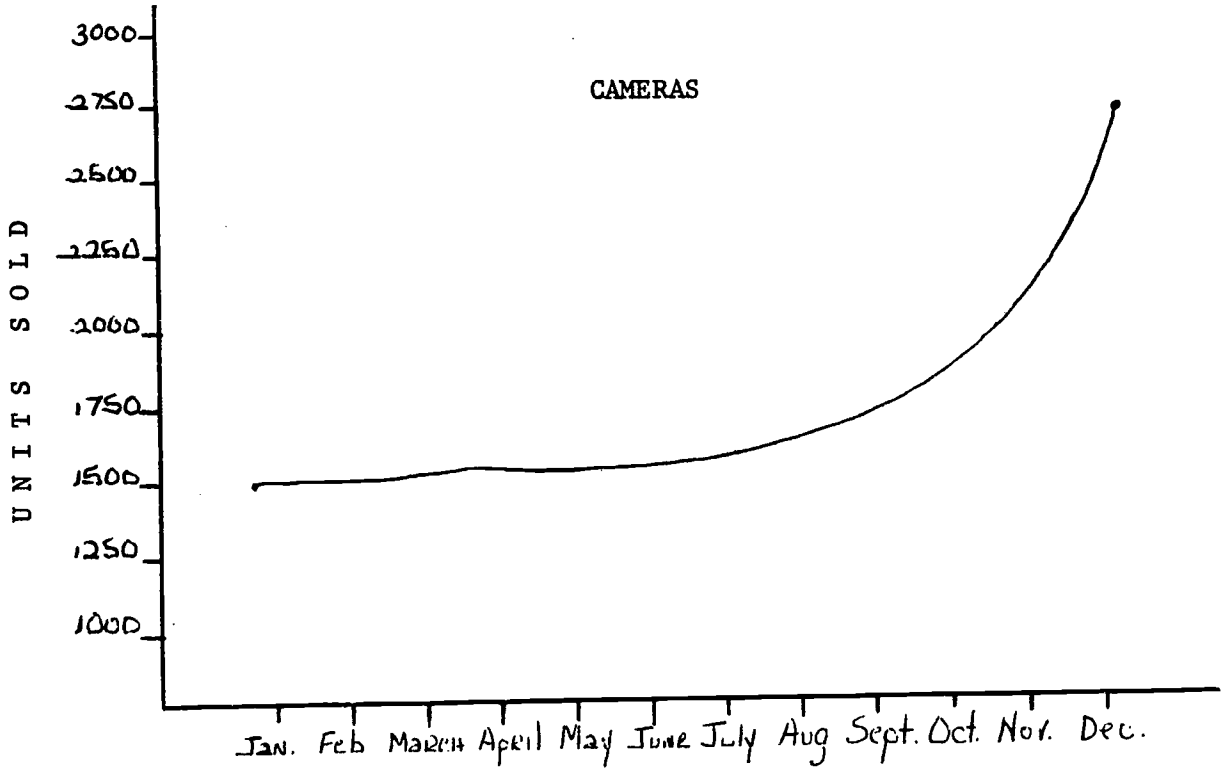
MERCHANDISING TEAM _____

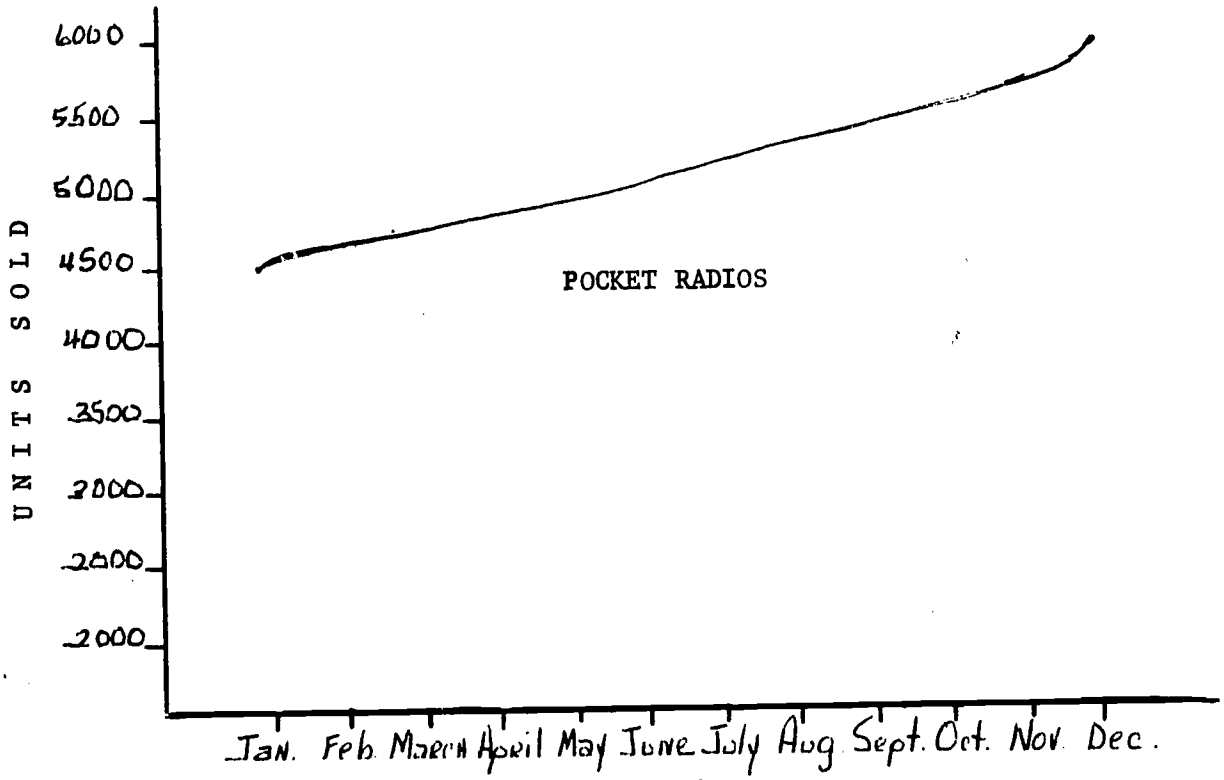
	MONTH _____		MONTH _____		MONTH _____	
	PRODUCTS		PRODUCTS		PRODUCTS	
	Cameras	Radios	Cameras	Radios	Cameras	Radios
SALES						
1. Sales (in units)						
2. Sales (in dollars)						
COST OF GOODS SOLD						
3. Beginning inventory						
4. Inventory received						
5. Inventory available for sale						
6. Ending inventory						
7. Cost of goods sold						
GROSS MARGIN						
8. Gross margin						
EXPENSES						
9. Sales salaries @ $400.00						
10. Inventory carrying charge (10% of ending inventory						
11. Fixed expenses	$5000	$7000	$5000	$7000	$5000	$7000
12. Total expenses						
PROFIT						
13. Net profit or loss						

20

PREVIOUS YEAR

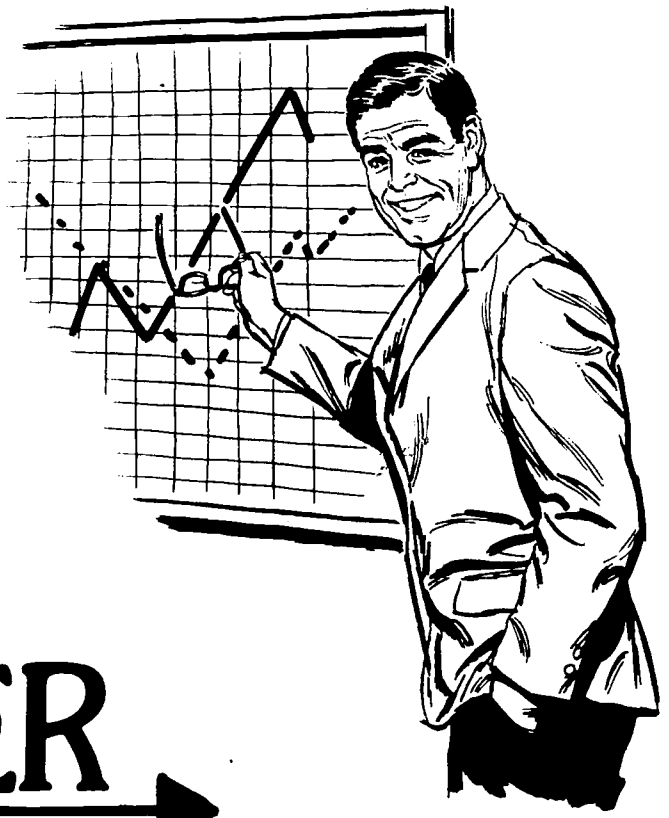
SALES CHARTS





MERCHANDISING TEAM SUMMARIES

MONTH	TEAM PROFITS					
	A	B	C	D	E	F
January						
February						
March						
April						
May						
June						
July						
August						
September						
October						
November						
December						
TOTAL						



TEACHER

INFORMATION

FORMS

MARKET REPORT

January	Due to promotional efforts of Jason's Department Store and competitors' promotion, it is believed that no department store will be able to increase their share of the market.
February	Jason's will promote Speed-E Cameras with considerable advertising. More-Tone Pocket Radios trend should be similar to January.
March	Speed-E Cameras' sales projections will be similar to sales in February. More-Tone Pocket Radios should produce sales figures similar to January and February.
April	It is believed that competitors will commit substantial advertising dollars for promoting their product lines similar to Speed-E Cameras and More-Tone Pocket Radios.
May	Due to competitors' advertising and being the close of the season, sales are expected to fall for Speed-E Cameras; however, sales for More-Tone Pocket Radios are expected to recover from previous losses.
June	Monthly projections are similar to May's estimates.
July	No information available.
August	Speed-E Cameras recover and More-Tone Pocket Radios will continue to enjoy good sales.
September	Speed-E Cameras will continue to enjoy a sales increase while More-Tone Pocket Radios will suffer due to competitors' activities.
October	Speed-E Cameras' sales will continue to increase and More-Tone Pocket Radios' sales will decline.
November	No information available.
December	No information available.

DEMAND SCHEDULE

SPEED-E CAMERAS

(January - June)

PRICE		JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE
$23	Units Sold	1355	1455	1555	1055	855	855
	Gross Sales	$31165	$33465	$35765	$24265	$19665	$19665
	Cost of Goods Sold	$20325	$21825	$23325	$15825	$12825	$12825
$22	Units Sold	1580	1680	1780	1280	1080	1080
	Gross Sales	$34760	$36960	$39160	$28160	$23760	$23760
	Cost of Goods Sold	$23700	$25200	$26700	$19200	$16200	$16200
$21	Units Sold	1795	1895	1995	1495	1295	1295
	Gross Sales	$37695	$39795	$41895	$31395	$27195	$27195
	Cost of Goods Sold	$26925	$28425	$29925	$22425	$19425	$19425
$20	Units Sold	2000	2100	2200	1700	1500	1500
	Gross Sales	$40000	$42000	$44000	$34000	$30000	$30000
	Cost of Goods Sold	$30000	$31500	$33000	$25500	$22500	$22500
$19	Units Sold	2195	2295	2395	1895	1695	1695
	Gross Sales	$41705	$43605	$45505	$36005	$32205	$32205
	Cost of Goods Sold	$32925	$34425	$35925	$28425	$25425	$25425
$18	Units Sold	2380	2480	2580	2080	1880	1880
	Gross Sales	$42840	$44640	$46440	$37440	$33840	$33840
	Cost of Goods Sold	$35700	$37200	$38700	$31200	$28200	$28200
$17	Units Sold	2555	2655	2755	2255	2055	2055
	Gross Sales	$43435	$45135	$46835	$38335	$34935	$34935
	Cost of Goods Sold	$38325	$39825	$41325	$33825	$30825	$30825

DEMAND SCHEDULE

SPEED-E CAMERAS

(July - December)

PRICE		JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
$23	Units Sold	805	955	1155	1355	1555	1955
	Gross Sales	$18515	$21965	$26565	$31165	$35765	$45885
	Cost of Goods Sold	$12075	$14325	$17325	$20325	$23325	$29325
$22	Units Sold	1030	1180	1380	1580	1780	2180
	Gross Sales	$22600	$25960	$30360	$34760	$39160	$47960
	Cost of Goods Sold	$15450	$17700	$20700	$23700	$26700	$32700
$21	Units Sold	1245	1395	1595	1795	1995	2395
	Gross Sales	$26145	$29295	$33495	$37695	$41895	$50295
	Cost of Goods Sold	$18675	$20925	$23925	$26925	$29925	$35925
$20	Units Sold	1450	1600	1800	2000	2200	2600
	Gross Sales	$29000	$32000	$36000	$40000	$44000	$52000
	Cost of Goods Sold	$21750	$24000	$27000	$30000	$33000	$39000
$19	Units Sold	1645	1795	1975	2195	2395	2795
	Gross Sales	$31225	$34105	$37525	$41705	$45505	$53105
	Cost of Goods Sold	$24675	$26925	$29625	$32925	$35925	$41925
$18	Units Sold	1830	1980	2180	2380	2580	2980
	Gross Sales	$32940	$35640	$39240	$42840	$46440	$53640
	Cost of Goods Sold	$27450	$29700	$32700	$35700	$38700	$44700
$17	Units Sold	2005	2155	2355	2555	2755	3155
	Gross Sales	$34085	$36635	$40035	$43435	$46835	$53635
	Cost of Goods Sold	$30075	$32325	$35325	$38325	$41325	$47325

DEMAND SCHEDULE

MORE-TONE POCKET RADIOS

(January - June)

PRICE		JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE
$13	Units Sold	1550	1550	1550	550	1050	1550
	Gross Sales	$20150	$20150	$20150	$ 7150	$13650	$20150
	Cost of Goods Sold	$ 9300	$ 9300	$ 9300	$ 3300	$ 6300	$ 9300
$12	Units Sold	2800	2800	2800	1800	2300	2800
	Gross Sales	$33600	$33600	$33600	$21600	$27600	$33600
	Cost of Goods Sold	$16800	$16800	$16800	$10800	$13800	$16800
$11	Units Sold	3950	3950	3950	2950	3450	3950
	Gross Sales	$43450	$43450	$43450	$32450	$37950	$43450
	Cost of Goods Sold	$23700	$23700	$23700	$17700	$20700	$23700
$10	Units Sold	5000	5000	5000	4000	4500	5000
	Gross Sales	$50000	$50000	$50000	$40000	$45000	$50000
	Cost of Goods Sold	$30000	$30000	$30000	$24000	$27000	$30000
$ 9	Units Sold	5950	5950	5950	4950	5450	5950
	Gross Sales	$53550	$53550	$53550	$44550	$49050	$53550
	Cost of Goods Sold	$35700	$35700	$35700	$29700	$32700	$35700
$ 8	Units Sold	6800	6800	6800	5800	6300	6800
	Gross Sales	$54400	$54400	$54400	$46400	$50400	$54400
	Cost of Goods Sold	$40800	$40800	$40800	$34800	$37800	$40800
$ 7	Units Sold	7550	7550	7550	6550	7050	7550
	Gross Sales	$52850	$52850	$52850	$45850	$49350	$52850
	Cost of Goods Sold	$45300	$45300	$45300	$39300	$42300	$45300

DEMAND SCHEDULE

MORE-TONE POCKET RADIOS

(July - December)

PRICE		JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
$13	Units Sold	1550	1550	1450	1050	750	450
	Gross Sales	$20150	$20150	$18850	$13650	$ 9750	$ 5850
	Cost of Goods Sold	$ 9300	$ 9300	$ 8700	$ 6300	$ 4500	$ 2700
$12	Units Sold	2800	2800	2700	2300	2000	1700
	Gross Sales	$33600	$33600	$32400	$27600	$24000	$20400
	Cost of Goods Sold	$16800	$16800	$16200	$13800	$12000	$10200
$11	Units Sold	3950	3950	3850	3450	3150	2850
	Gross Sales	$43450	$43450	$42350	$37950	$34650	$31350
	Cost of Goods Sold	$23700	$23700	$23100	$20700	$18900	$17100
$10	Units Sold	5000	5000	4900	4500	4200	3900
	Gross Sales	$50000	$50000	$49000	$45000	$42000	$39000
	Cost of Goods Sold	$30000	$30000	$29400	$27000	$25200	$23400
$ 9	Units Sold	5950	5950	5850	5450	5150	4850
	Gross Sales	$53550	$53550	$52650	$49050	$46350	$43650
	Cost of Goods Sold	$35700	$35700	$35100	$32700	$30900	$29100
$ 8	Units Sold	6800	6800	6700	6300	6000	5700
	Gross Sales	$54400	$54400	$53600	$50400	$48000	$45600
	Cost of Goods Sold	$40800	$40800	$40200	$37800	$36000	$34200
$ 7	Units Sold	7550	7550	7450	7050	6750	6450
	Gross Sales	$52850	$52850	$52150	$49350	$47250	$45150
	Cost of Goods Sold	$45300	$45300	$44700	$42300	$40500	$38700

PROFIT MAXIMIZATION TABLE

SPEED-E CAMERAS

(January - December)

MONTH	PRICE	REVENUE	COSTS	PROFIT
January	$ 23	$ 31165	$ 27825	$ 3340
February	$ 23	$ 33465	$ 30025	$ 3440
March	$ 23	$ 35765	$ 31525	$ 4240
April	$ 22	$ 28160	$ 27000	$ 1160
May	$ 22	$ 23760	$ 23600	$ 160
June	$ 22	$ 23760	$ 23600	$ 160
July	$ 22	$ 22600	$ 22850	- $ 250 (loss)
August	$ 22	$ 25960	$ 25100	$ 860
September	$ 22	$ 30360	$ 28500	$ 1860
October	$ 23	$ 31165	$ 27825	$ 3340
November	$ 23	$ 35765	$ 31525	$ 4240
December	$ 23	$ 45885	$ 37925	$ 7960

NOTE TO INSTRUCTOR: These figures represent the most any team could possibly make if they chose this price level. Do not disclose this to the players. Some months are set up so you must lose money but will gain a cumulative profit for the year.

PROFIT MAXIMIZATION TABLE

MORE-TONE POCKET RADIOS

(January - December)

MONTH	PRICE	REVENUE	COSTS	PROFIT
January	$ 11	$ 43450	$ 36300	$ 7150
February	$ 11	$ 43450	$ 36300	$ 7150
March	$ 11	$ 43450	$ 36300	$ 7150
April	$ 11	$ 32450	$ 28700	$ 3750
May	$ 11	$ 37950	$ 32500	$ 5450
June	$ 11	$ 43450	$ 36300	$ 7150
July	$ 11	$ 43450	$ 36300	$ 7150
August	$ 11	$ 43450	$ 36300	$ 7150
September	$ 11	$ 42350	$ 35300	$ 7050
October	$ 11	$ 37950	$ 32500	$ 5450
November	$ 11	$ 34650	$ 30300	$ 4350
December	$ 10	$ 39000	$ 35600	$ 3400

NOTE TO INSTRUCTOR: These figures represent the most any team could possibly make if they chose this price level. Do not disclose this to the players. Some months are set up so you must lose money but will gain a cumulative profit for the year.