LESSON 12

Profits and entrepreneurship

TIME REQUIRED:
One or Two Class Periods

CONCEPTS:
Total Revenue
Cost of Production
Profit
Return on Investment
Fixed Costs (Optional Activity)
Variable Costs (Optional Activity)

INSTRUCTIONAL OBJECTIVES:

Students will:
• Discuss the role of profit as the basic incentive for running a business in the United States

• Compute the cost of production for a given business venture

• Distinguish between fixed and variable costs of production and give examples of each (Optional Activity)

• Identify and explain alternative measures of profit and their implication for measuring the profitability of an entrepreneurial enterprise (Optional Activity)

• Compare revenue and cost data to determine profitability of an entrepreneurial venture

RATIONALE::
People become entrepreneurs for many reasons, including the desire to earn a profit. A commonly used measure of profit is the difference between a firm's revenue and its costs. Such a simple definition can be misleading if it excludes considerations of alternative uses for the entrepreneur's time or money. A person who spends 70 hours a week working in a business should not exclude the value of his or her time and labor from the measure of the firm's costs. Someone who invests $100,000 in a firm must realize that the same money deposited in a bank would have earned substantial interest. This too should be included in the firm's costs. Entrepreneurs who fail to recognize these facts may overstate the profitability of their firms and as a result under price their products.

MATERIALS:
• Activity 44 "How big is the profit slice of pie?"

• Activity 45 "How is the pie divided?"

• Activity 46 "Fixed and variable costs" (Optional)

• Activity 47 "Profit projection form"

• Activity 48 "Deciding on a club enterprise"
(Optional)

• Activity 49 Comprehension quiz, lesson 12

VOCABULARY:

Profit	the difference between a firm's total revenue and total cost of production
Return on Investment	profit as a percentage of the amount invested in a firm
Total Revenue	selling price multiplied by the quantity sold
Fixed Costs	costs of production that remain the same as the quantity of goods or services produced changes
Variable Costs	costs of production that change as the quantity of goods or services produced changes
Total Cost	the sum of all costs of production, both fixed and variable

PROCEDURES:

1. Select several students and ask them why they might consider becoming an entrepreneur or why they think anyone would want to become an entrepreneur. Most will probably say they want to get rich or earn a profit. Through discussion, help the students understand that the profit motive is one of the basic incentives for becoming an entrepreneur. (For discussion of other incentives, see Lesson 2.)

2. Write the definition of profit on the board. Help students to define "total revenue" and "total cost." (It is not necessary at this time that students understand the difference between fixed and variable costs; they should, however, know the major categories of expense that are included in the cost of production, e.g., labor, rent, utilities, etc.)

3. Distribute Activity 44. Go over the instructions with the students; then have them complete the handout individually or working in pairs. Explain that the circumference of the circle is divided into 100 equal parts.

4. Allow several minutes for the students to complete the pie graph. Ask several students to tell the class how much of the pie they thought was profit. How much was spent to pay the cost of merchandise? How much to pay for operating expenses?

5. Project a transparency of Activity 45 (or use the activity as a handout). Tell students that the graph shows the results of a survey of U.S. retailers. Have the students compare this with their pie graphs. Have them discuss why they thought the amount of profit earned by retailers was more (or less) than that shown on the graph. Discuss the implications of the small profit margin for entrepreneurs.

6. Choose two local firms with which the students are familiar---one that is doing well, and one that is not. Ask the students to suggest reasons for the second firm's apparent failure. Have the students suggest steps that the failing business could take to improve its profits. List their suggestions on the board using a chart similar to the following:

Reasons for failure	Actions needed to increase profits
1.	1.
2.	2.

7. *Optional Activity:* Fixed and Variable Costs

• From the list compiled in procedure 6, select items as examples of fixed and variable costs of production.

• Write the definitions of fixed costs and variable costs on the board. Have the students give additional examples of each.

• Distribute copies of Activity 46. Have students complete the exercise in small groups or as an entire class, discussing the answers as they work through the items.

EVALUATION:

Lesson without Optional Activity. Have students complete Activity 47 or select appropriate items from Activity 49.

Lesson including Optional Activity. Have students complete Activity 48 or use Activity 49.
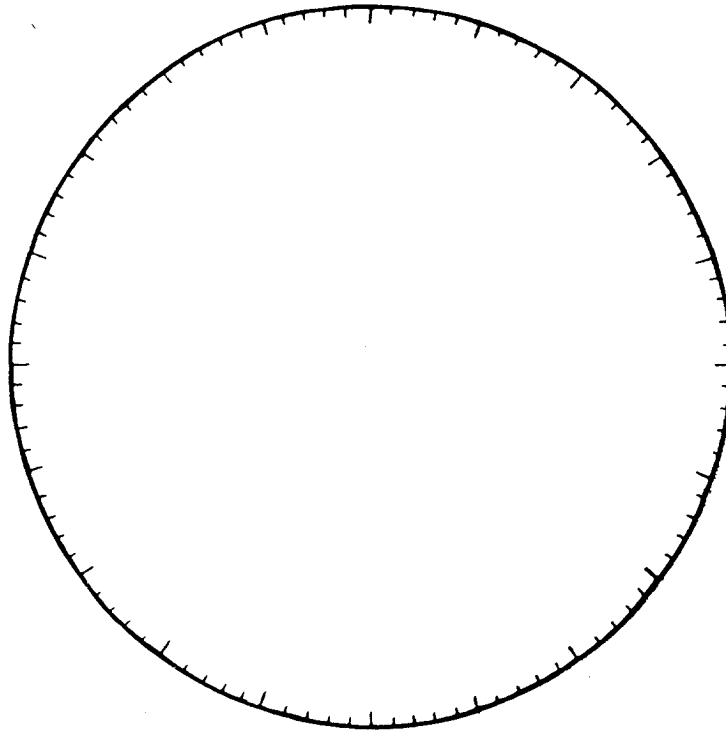
ACTIVITY 44

How big is the profit slice of pie?

INSTRUCTIONS

Assume that you are the owner of a successful retail store, and the circle (pie) below represents the total revenue for one year.
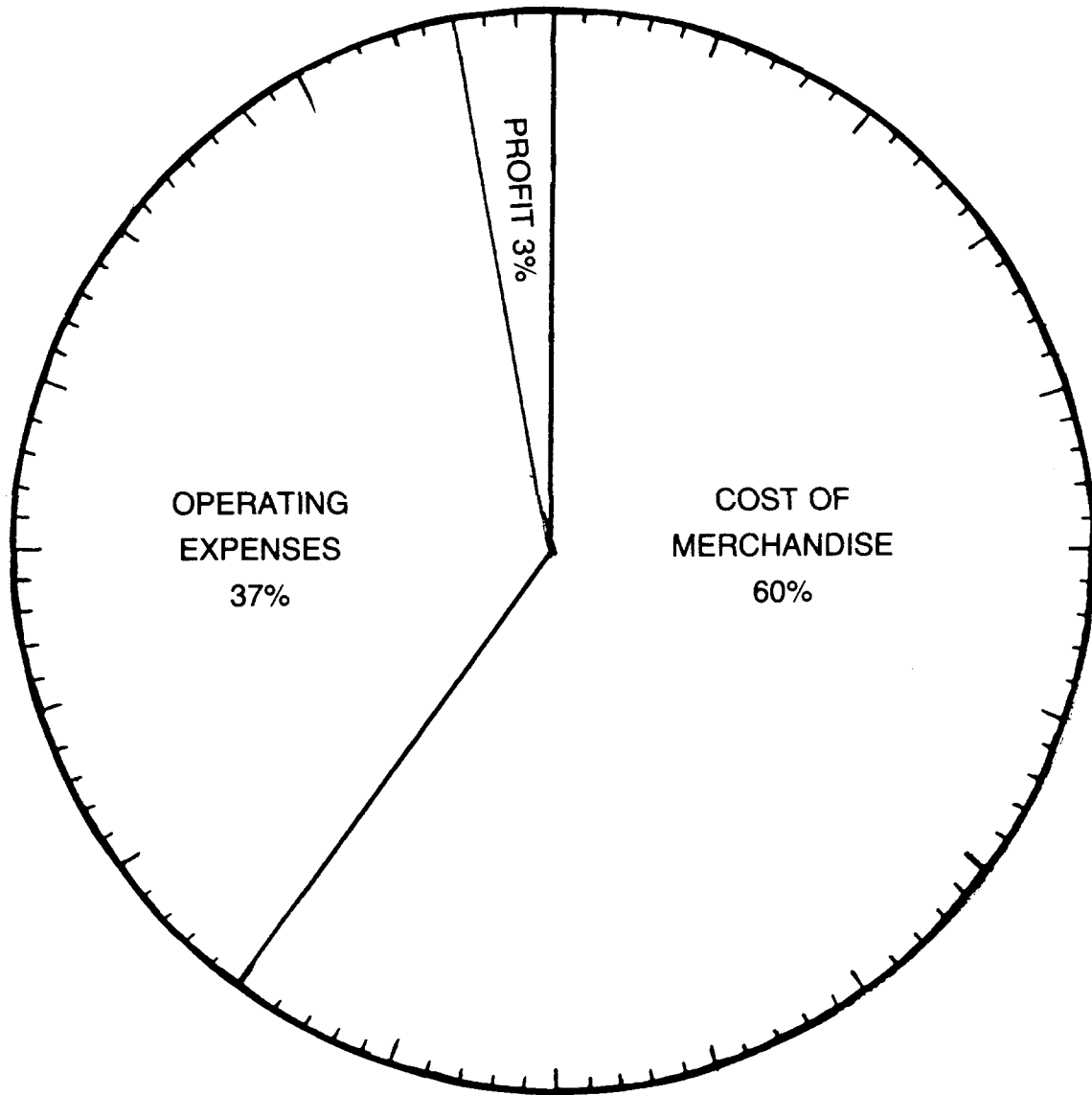
Out of the revenue earned, you must pay for the merchandise you sold. You must also pay operating expenses. Of course, you also expect to make a profit. Divide the circle (pie) to show what portion of the total revenue you think will be profit, what portion will be used
to pay for merchandise, and what portion will be needed for operating expenses.

a. To begin, mark off and label a slice of pie to represent the amount of profit you would expect to earn.

b. Then mark off and label a slice to represent payment for the merchandise sold.

c. The slice left represents the amount set aside for operating expenses. Do you think you have set aside enough for all the expenses associated with operating a business?

d. Make any adjustments in the three portions of the pie that you think are necessary.

ACTIVITY 45

How is the pie divided?

A pie chart titled "How is the pie divided?" showing three sections: PROFIT 3%, OPERATING EXPENSES 37%, and COST OF MERCHANDISE 60%.

ACTIVITY 46
Fixed and variable costs

Sharon has wanted to own her own pottery shop for a long time. Last year she inherited $30,000 from her uncle. She used the money to go into business. She worked 50 hours every week making pots and running the store.

At the end of the year, she figured out her profit and was very disappointed. She wrote down all the information she gathered on a sheet of paper and tried to decide what she could do to improve her earnings.

Study the data and answer the questions below.

Total revenue (5,000 pots x $10 each)	**$50,000**	
Investment in equipment	15,000	Fixed
Investment in remodeling rented store	5,000	Fixed
Cost of clay and other materials used	9,000	Variable
Cost of electricity and utilities	3,200	Variable
Wages and benefits for one part-time helper	6,400	Fixed
Insurance	1,200	Fixed
Advertising	1,800	Fixed
Bookkeeping service	3,600	Fixed
Other costs	2,000	Mixed
Total Expenditures	**52,000**	

1. Identify Sharon's costs as fixed, variable, or mixed by writing the correct word in the blank after each cost line.

2. How do you think Sharon should account for the value of her own time and labor?
> **Answers will vary but should reflect realization that Sharon's time is worth something, and its value should not be regarded as profit. It should be added to the other costs.**

3. How much do you think Sharon could have earned if she had deposited her $30,000 in a bank?
> **Answers will vary. (Example: A time deposit at 8% would have earned $2,400.)**

4. Sharon looked at what she spent and what she took in and figured she had lost $2,000. Why was she wrong?
> **The investment in equipment and remodeling should not all be assigned as a cost in the current year. Also, she did not include the value of her time.**

5. If Sharon doesn't think her business is going to get any better, should she stay in business? Explain why, or why not.
> **She should consider getting out of business and working for someone else who would pay her more or require her to work fewer hours.**

ACTIVITY 47

Profit projection form

PART I
Suppose your club wants to earn money by selling quarter-pound hamburgers at local basketball games.

You believe you could sell 3,000 hamburgers during the 12-game season at a price of $1.50 each. You must rent a booth at the gymnasium for $50 per night. Labor will be supplied free by members of the club. You need to predict your costs and profits. Complete the form below.

Check the prices at your local grocery stores for the food items included on the list.

Rent for a booth for 12 nights	$_____
Cost of ground beef for 3,000 hamburgers	$_____
Cost of 3,000 hamburger buns	$_____
Ketchup (one 32 oz. bottle per 50 hamburgers)	$_____
Mustard (one 16 oz. bottle per 100 hamburgers)	$_____
Pickles (one 32 oz. bottle per 50 hamburgers)	$_____
Onions (one pound per 50 hamburgers)	$_____
Paper napkins (one per hamburger)	$_____
Total cost of producing 3,000 hamburgers	$_____
Total revenue for selling 3,000 hamburgers	$_____
Profit or loss	$_____

PART II
Based on your projections for profit (or loss), would you recommend that your club sell hamburgers to earn money or would you recommend that they undertake some other activity? Why or why not?

_____

_____

_____

_____

_____

ACTIVITY 48

Deciding on a club enterprise

1. Suppose your club wants to earn money by selling quarter-pound hamburgers at local basketball games.

   You believe you could sell 3,000 hamburgers during the 12-game season at a price of $1.50 each. You must rent a booth at the gymnasium for $50 per night. Labor will be supplied free by members of the club. You need to predict your costs and profits. Complete the form below. Check the prices at your local grocery stores for the food items included on the list.

Rent for a booth for 12 nights	$_____	( )
Cost of ground beef for 3,000 hamburgers	$_____	( )
Cost of 3,000 hamburger buns	$_____	( )
Ketchup (one 32 oz. bottle per 50 hamburgers)	$_____	( )
Mustard (one 16 oz. bottle per 100 hamburgers)	$_____	( )
Pickles (one 32 oz. bottle per 50 hamburgers)	$_____	( )
Onions (one pound per 50 hamburgers)	$_____	( )
Paper napkins (one per hamburger)	$_____	( )
Total cost of producing 3,000 hamburgers	$_____	
Total revenue for selling 3,000 hamburgers	$_____	
Profit or loss	$_____	

2. Identify each of the costs above as fixed or variable by placing the letter "F" or "V" in the parentheses at the end of each cost line.

3. If you had to pay workers a total salary of $100 a night instead of having volunteers from your club, what would happen to your profits? Should you continue to sell hamburgers in this case? Explain your answer.

_____

_____

_____

_____

ACTIVITY 49

Comprehension quiz, lesson 12

PART I

Complete the following by circling the letter of the best answer.

1. The correct formula for finding a firm's profit is:
   a. profit = total revenue - total cost
   b. profit = (price x number sold) - cost per item
   c. profit = (cost per item - price) x number sold

2. Many entrepreneurs overestimate their profits because they:
   a. don't keep records of their sales
   b. don't consider the value of their time
   c. don't try to control their labor costs

3. Resources tend to flow to firms that are efficient and profitable because:
   a. they have a greater need for those resources
   b. they use those resources more quickly
   c. they can afford to pay for those resources

4. If the owners of a firm have no expectation of ever earning a profit, they should:
   a. go out of business and put their money in a bank
   b. try to merge their business with another larger firm
   c. lower their prices so they can sell more items

PART II

Joe makes deliveries in the evening and on Saturdays for a local drug store. By carrying the items, he earned $80 each week. He saved his money until he had $4,000. Joe decided to buy a used car with his money. By driving the car, he is able to deliver more items and now earns $120 a week. Joe believes the car was a wise investment. Write a brief essay that explains why Joe probably is wrong.

> **Joe is probably wrong because the cost of owning a car in all likelihood exceeds the extra $40 a week he earns. Insurance alone is likely to cost about $1,000 a year (or more). He should also realize that the value of the car will depreciate over time.**