CHAPTER 11

FINANCIAL PLAN

What You'll Do

Develop a financial plan that projects the future profitability of your company. You will explain how much capital is required to start or expand your business. You will also explain how you will use that capital. In addition, you will project sales, expenses, profitability, and equity three years into the future.

KEY TERMS

- capital
- pro forma
- working capital
- growth capital
- equity capital
- variable expenses
- fixed expenses

READING PREVIEW

The financial plan is a set of documents that projects the future profitability of a company. The plan explains how much money is required to start or expand a business. It describes how the money will be used and what effect the money will have on the future profitability of the company. Creditors and investors will be particularly interested in these financial projections to determine whether the company will be a good investment.

The Purpose of the Financial Plan

Up to this point, your business plan has described the business concept, the products or services you will sell, whom you will compete with, and how you will reach your target market. The financial plan is the quantitative analysis of what you have stated previously in the plan. The financial plan allows you to look at your proposed strategies to determine the profitability of your business concept. The financial plan is often the first section reviewed by potential lenders and investors.

However, the financial plan is more than a document to attract investors. It is a road map that guides your company into the future. It is a planning tool that projects where your company will be in the future. It also helps you decide what you need to accomplish to meet your goals.

There are three main sections to the financial plan. The first is the *statement of sources and uses of funds.* This analysis describes the operating expenses and capital required to start or expand the business. **Capital** is the money used to acquire buildings, equipment, tools, and other goods needed to start a business. The next section is the *pro forma financial statements.* **Pro forma** refers to proposed or estimated financial statements based on predictions of how you think the actual operations of a business will turn out. Pro forma financial statements are used to project the future profitability of your company. The third section is the *financial analysis.* This section compares your projected financial data to industry benchmarks. It tells investors whether your plan is realistic and typical within your industry.

Statement of Sources and Uses of Funds

There are three main types of funding needs that a business requires. **Working capital** is the amount of cash needed to carry out the daily business operations. This capital is obtained through collection of money from sales and short-term loans.

Growth capital is money required to increase your business profits. It might be money used to increase marketing efforts or to increase production capacity. Growth capital can be acquired from company profits. It can also be a loan repaid with interest. Such loans are usually repaid in seven years or less.

Equity capital is money required for long-term needs such as expanding or starting a new company. This capital is acquired from investors who are willing to risk their money in exchange for a share of ownership in the business.

The sources and uses of funds statement will tell potential lenders and investors exactly what your financial needs are. It will explain why you need the money and how much you need. The statement will also describe how you will disperse or use the funds. Figure 11.1 is an example.

Pro Forma Financial Statements

Pro forma financial statements show your projections for the future profitability of your company. If the company is new, the statements will only include projections. If the company is already in business, the statements will contain previous financial history as well as future projections. These three statements are interrelated and provide the complete financial status of a company at any given point in time.

- Cash flow statement
- Income statement
- Balance sheet

Sources and Uses of Funds	
Sources of Funds	
Jan Jones (personal funds)	$182,913
Bank loans for computer and vehicles	75,000
Total sources	$257,913
Uses of Funds	
Computer, peripherals, and software	$9,000
Food lockers and freezers	15,000
Delivery vehicles	66,000
Phone system	1,500
Miscellaneous furniture and fixtures	3,500
Start-up expenses	54,600
Working capital	108,313
Total uses	$257,913

Figure 11.1

Cash Flow Statement

A pro forma cash flow statement is like a budget. It projects when cash will be received and when cash is needed to pay debts. Cash flow is extremely important to a business. A business must have enough cash on hand to pay for its day-to-day operations. Nearly one-third of businesses fail because of a lack of cash flow.

Quick Think—Cash Flow

Directions: Create a cash flow for your own spending. How much money will you receive in the next month? Calculate your cash flow, then determine if you have enough cash to cover your planned purchases.

1. List your sources of cash.

Sources of Cash	**Amount**
Allowance	$______
Salary	$______
Other	$______
Total	$______

2. How much money will you spend over the next month? List all of your planned purchases.

Items to Purchase	**Amount**
________________	$______
________________	$______
________________	$______
________________	$______
________________	$______
Total	$______

3. Now subtract the cash needed to make purchases from your sources of cash. What is your ending balance?

Cash Balance $______

A company's cash flow statement is similar to the one you just did for yourself. The pro forma cash flow statements shown in Figures 11.2 and 11.3 are similar to the one you will create for your business. Figure 11.2 on page 160 shows month-by-month for the first year. Figure 11.3 on page 161 shows quarterly figures for the second and third years.

Pro Forma Cash Flow Statement

	Year 1												
	Mo. 1	Mo. 2	Mo. 3	Mo. 4	Mo. 5	Mo. 6	Mo. 7	Mo. 8	Mo. 9	Mo. 10	Mo. 11	Mo. 12	Total
Cash receipts													
Sales	2,600	3,900	6,500	13,000	19,500	23,400	26,000	28,600	31,200	33,800	36,400	39,000	263,900
Other													
Total cash receipts	2,600	3,900	6,500	13,000	19,500	23,400	26,000	28,600	31,200	33,800	36,400	39,000	263,900
Cash disbursements													
Cost of goods sold	1,700	2,550	4,250	8,500	12,750	15,300	17,000	18,700	20,400	22,100	23,800	25,500	172,550
Salaries and wages	7,400	7,400	7,400	7,400	7,400	7,400	9,800	9,800	9,800	9,800	9,800	9,800	103,200
Operating supplies	300	300	300	300	300	300	300	300	300	300	300	300	3,600
Repairs and maintenance	250	250	250	250	250	250	250	250	250	250	250	250	3,000
Advertising and promotion	130	195	325	650	975	1,170	1,300	1,430	1,560	1,690	1,820	1,950	13,195
Bad debts	100	100	100	100	100	100	100	100	100	100	100	100	1,200
Rent	1,667	1,667	1,667	1,667	1,667	1,667	1,667	1,667	1,667	1,667	1,667	1,667	20,004
Utilities	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	12,000
Insurance	600	600	600	600	600	600	600	600	600	600	600	600	7,200
General office	150	150	150	150	150	150	150	150	150	150	150	150	1,800
Licenses	200	0	0	0	0	0	0	0	0	0	0	0	200
Interest	310	310	310	310	310	310	530	530	530	530	530	530	5,040
Debt service (principal)												10,333	10,333
Total cash disbursements	13,807	14,522	16,352	20,927	25,502	28,247	32,697	34,527	36,357	38,187	40,017	52,180	353,322
Net cash flow	(11,207)	(10,622)	(9,852)	(7,927)	(6,002)	(4,847)	(6,697)	(5,927)	(5,157)	(4,387)	)(3,617)	(13,180)	(89,422)

Figure 11.2

Pro Forma Cash Flow Statement

	Year 2				Year 3			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Cash receipts								
Sales	136,500	156,000	194,698	234,000	253,500	273,000	292,500	312,000
Other								
Total cash receipts	136,500	156,000	194,698	234,000	253,500	273,000	292,500	312,000
Cash disbursemens								
Cost of goods sold	89,250	102,000	127,303	153,000	165,750	178,500	191,250	204,000
Salaries and wages	31,164	38,796	38,796	38,796	41,124	41,124	41,124	41,124
Operating supplies	900	900	900	900	900	900	900	900
Repairs and maintenance	750	750	750	750	750	750	750	750
Advertising and promotion	6,825	7,800	9,735	11,700	12,675	13,650	14,625	15,600
Bad debts	300	300	300	300	300	300	300	300
Rent	5,301	5,301	5,301	5,301	5,619	5,619	5,619	5,619
Utilities	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
Insurance	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800
General office	450	450	450	450	450	450	450	450
Licenses	0	0	0	0	0	0	0	0
Interest	1,280	1,940	1,720	1,720	1,410	1,190	970	970
Debt service (principal)		7,333		10,333	7,333	7,333		10,333
Total cash disbursements	141,020	170,370	190,055	228,050	241,111	254,616	260,788	284,846
Net cash flow	(4,520)	(14,370)	4,643	5,950	12,389	18,384	31,712	27,154

Figure 11.3

Income Statement

An income statement shows how much money a company has made or lost during a time period. An income statement is generally divided into the following categories:

- Income or sales
- Gross profit
- Operating expenses
- Net profit (loss) before taxes
- Taxes
- Net profit (loss)

The pro forma income statement is a profit and loss statement. It is an estimate of the revenue you expect to receive, the expenses you will incur, and the difference between the two. This difference is the profit or loss. Figure 11.4 on page 162 shows month-by-month for the first year. Figure 11.5 on page 163 shows quarterly figures for the second and third years.

Pro Forma Income Statement

	Year 1											
	Mo. 1	Mo. 2	Mo. 3	Mo. 4	Mo. 5	Mo. 6	Mo. 7	Mo. 8	Mo. 9	Mo. 10	Mo. 11	Mo. 12
Sales[1]	2,600	3,900	6,500	13,000	19,500	23,400	26,000	28,600	31,200	33,800	36,400	39,000
Less: Cost of goods sold[2]	1,700	2,550	4,250	8,500	12,750	15,300	17,000	18,700	20,400	22,100	23,800	25,500
Gross profit	900	1,350	2,250	4,500	6,750	8,100	9,000	9,900	10,800	11,700	12,600	13,500
Less: Operating expenses												
Salaries and wages[3]	7,400	7,400	7,400	7,400	7,400	7,400	9,800	9,800	9,800	9,800	9,800	9,800
Operating supplies	300	300	300	300	300	300	300	300	300	300	300	300
Repairs and maintenance	250	250	250	250	250	250	250	250	250	250	250	250
Advertising and promotion[4]	130	195	325	650	975	1,170	1,300	1,430	1,560	1,690	1,820	1,950
Bad debts	100	100	100	100	100	100	100	100	100	100	100	100
Rent[5]	1,667	1,667	1,667	1,667	1,667	1,667	1,667	1,667	1,667	1,667	1,667	1,667
Utilities	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Insurance	600	600	600	600	600	600	600	600	600	600	600	600
General office	150	150	150	150	150	150	150	150	150	150	150	150
Licenses	200	0	0	0	0	0	0	0	0	0	0	0
Interest[6]	310	310	310	310	310	310	530	530	530	530	530	530
Depreciation[7]	1,271	1,271	1,271	1,271	1,271	1,271	1,271	1,271	1,271	1,271	1,271	1,271
Total operating expenses	13,378	13,243	13,373	13,698	14,023	14,218	16,968	17,098	17,228	17,358	17,488	17,618
Profit (loss) before taxes	(12,478)	(11,893)	(11,123)	(9,198)	(7,273)	(6,118)	(7,968)	(7,198)	(6,428)	(5,658)	(4,888)	(4,118)
Less: Taxes	0	0	0	0	0	0	0	0	0	0	0	0
Net profit (loss)	(12,478)	(11,893)	(11,123)	(9,198)	(7,273)	(6,118)	(7,968)	(7,198)	(6,428)	(5,658)	(4,888)	(4,118)

Figure 11.4

[1]Sales—per Action Plan Average unit sale is $50.00 for groceries plus $10.00 per week for delivery, making the monthly unit sales per household (2 people) $60.00.
[2]Cost of Goods sold—80% of retail grocery price, or $40.00 per household per week ($170.00/month household). (80% an average margin on groceries)
[3]Salaries and wages—Ms. Jones's salary will be $5,000/month. Order clerks wll be paid $1,300/month, and delivery clerks will be paid $1,100/month. One additional order clerk and delivery clerk each will be added once sales reach 100 households, and again at 200 households. Salaries will escalate at 6%/year.
[4]Advertising and promotion—The grocery industry standard is 1% of sales. However, Gourmet to Go being a new business will require more than that level; 5% of sales is used in this plan. (Special prestart-up advertising is covered with other start-up expenses.)
[5]Rent—2,000/ft.^{2} @ $10.00/ft^2.; $1,667/month; escalate at 6%/year.
[6]Interest—Loans on computer ($9,000) and delivery vehicles ($22,000 ea.) at 12.0%/year. (Delivery vehicles will be added with delivery clerks.) (Debt service—based on three-year amortization of loans with payments of ⅓ at the end of each of the three years.)
[7]Depreciation—All equipment will be depreciated per ACRS schedules: vehicles and computers—3 years; furniture and fixtures—10 years.

Quick Think—Income Statement

In what month does this business have its highest sales?

____

Pro Forma Income Statement

	Year 2				Year 3			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Sales[1]	136,500	156,000	194,698	234,000	253,500	273,000	292,500	312,000
Less: Cost of goods sold[2]	89,250	102,000	127,303	153,000	165,750	178,500	191,250	204,000
Gross profit	47,250	54,000	67,395	81,000	87,750	94,500	101,250	108,000
Less: Operating expenses								
Salaries and wages[3]	31,164	38,796	38,796	38,796	41,124	41,124	41,124	41,124
Operating supplies	900	900	900	900	900	900	900	900
Repairs and maintenance	750	750	750	750	750	750	750	750
Advertising and promotion[4]	6,825	7,800	9,735	11,700	12,675	13,652	14,625	15,600
Bad debts	300	300	300	300	300	300	300	300
Rent[5]	5,301	5,301	5,301	5,301	5,619	5,619	5,619	5,619
Utilities	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
Insurance	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800
General office	450	450	450	450	450	450	450	450
Interest[6]	1,280	1,940	1,720	1,720	1,410	1,190	970	970
Depreciation[7]	6,910	6,910	6,910	6,910	7,493	7,493	7,493	7,493
Total operating expenses	58,680	67,947	69,662	71,627	75,520	76,275	77,030	78,005
Profit (loss) before taxes	(11,430)	(13,947)	(2,267)	9,373	12,230	18,225	24,220	29,995
Less: Taxes	0							
Net profit (loss)	(11,430)	(13,947)	(2,267)	9,373	12,230	18,225	24,220	29,995

Figure 11.5

[1]Sales—per Action Plan Average unit sale is $40.00 for groceries plus $10.00 per week for delivery, making the monthly unit sales per household (2 people) $215.00.
[2]Cost of Goods sold—80% of retail grocery price, or $32.00 per household per week ($138.00/month household). (80% an average margin on groceries—*Progressive Grocer*, April 1984; p. 94.)
[3]Salaries and wages—Ms. Jones's salary will be $4,500/month. Order clerks wll be paid $1,000/month, and delivery clerks will be paid $900/ month. One additional order clerk and delivery clerk each will be added once sales reach 100 households, and again at 200 households. Salaries will escalate at 6%/year.
[4]Advertising and promotion—The grocery industry standard is 1% of sales. However, Gourmet to Go being a new business will require more than that level; 5% of sales is used in this plan. (Special prestart-up advertising is covered with other start-up expenses.)
[5]Rent—2,000/ft.^{2} @ $8.00/ft.^{2}; $1,333/month; escalate at 6%/year.
[6]Interest—Loans on computer ($10,000) and delivery vehicles ($12,000 ea.) at 12.5%/year. (Delivery vehicles will be added with delivery clerks.) (Debt service—based on three-year amortization of loans with payments of ⅓ at the end of each of the three years.)
[7]Depreciation—All equipment will be depreciated per ACRS schedules: vehicles and computers—3 years; furniture and fixtures—10 years.

Quick Think—Income Statement

In what quarter does this business become profitable for the first time?

____

Sales

Sales is revenue that you receive from the sale of your product or service. Revenue is usually recorded at the time the sale is made or the service provided rather than when you receive payment from the customer. In many instances, customers have 30 days to pay for purchases. This is one fundamental difference between the cash flow statement and the income statement.

Gross Profit

Gross profit is calculated by subtracting your cost of materials for creating the product or service from the revenue you receive from selling it. For example, if you sell a cup of coffee for $1.00 and it cost you $0.45 to buy the cup and the coffee, your gross profit on sales is $0.55. The cost of goods only includes those materials needed to make the product (coffee beans and cups). It does not include any equipment necessary to create the product (the cost of the coffee maker or the furniture in your coffee shop). These expenses are recorded elsewhere in the statement.

Operating Expenses

Expenses are usually divided into two categories—variable expenses and fixed expenses. **Variable expenses** are cash outlays for things that can change depending on the number of products you sell. For example, the more products you sell the more freight will cost to ship the products. Packaging cost will also increase as you sell more products. Variable expenses are also expenses that you have direct control over. For example, advertising is a variable expense. You can choose to advertise heavily or cut back. **Fixed expenses** are cash outlays that need to be paid even if you don't sell any products. Examples include rent, insurance, and utilities. You have little control over them month-to-month.

Net Profit (Loss) Before Taxes and Net Profit (Loss)

Profit before taxes is the difference between the sales revenue brought in and the expenses you pay out. Profit can be positive, negative, or zero. Profit (or loss) before taxes tells you what amount of profit you need to pay taxes on. Net profit is the total amount of profit or loss after you pay taxes.

Quick Think—Expenses

Do you have more control over variable expenses or fixed expenses? Why?

____

____

Research Extension

Depreciation

Depreciation is the allocation of fixed asset costs to present and future operations. The purchase of a fixed asset occurs at one time. However, the use of the asset goes on into future periods. Depreciation is a way to spread out the cost of the asset over its expected useful life.

Here is an example. Your company needs to buy an expensive piece of equipment to manufacture your product. It will cost $500,000. You buy that piece of equipment this year. You anticipate that the equipment will last ten years until it will need to be replaced. At that time you estimate that you can sell it to someone for $15,000. Depreciation allows you to spread the cost of the equipment over its projected ten-year life. You would calculate the depreciation as follows:

$$\frac{\textbf{Cost to purchase the equipment} - \textbf{Value of equipment after its use}}{\textbf{Expected number of years of use}}$$

$$\frac{\$500{,}000 - \$15{,}000}{10 \text{ years}} = \$48{,}500$$

Rather than recording the full expense of purchasing the equipment ($500,000) in the first year, you would record $48,500 of expense in each year for ten years. This method allows you to better reflect the cost and usefulness of the asset in your income statement and your balance sheet.

Balance Sheet

A balance sheet shows the financial position of a company on a given date. The balance sheet shows what your business owns and owes on that date. It allows you to identify and analyze trends in the financial strength of the business. All balance sheets are divided into three sections.

- Assets—anything the business owns that has monetary value
- Liabilities—debts owed by the business
- Owner's equity—what the business owes the owners

A business is always in a condition of equality. What a business owns equals what a business owes to either its creditors or owners. This is expressed in the equation:

Assets = Liabilities + Owner's equity

Figure 11.6 on page 166 is an example of a balance sheet.

Pro Forma Balance Sheet

End of:	Year 1	Year 2	Year 3		Year 1	Year 2	Year 3
Assets				**Liabilities**			
Current assets				Accounts Payable	12,750	21,217	31,875
Cash	3,000	5,000	7,000	Notes payable	0	0	0
Accounts receivable	19,500	32,450	48,750	Total current liabilites	12,750	21,217	31,875
Inventory	12,750	21,217	31,875	Long-term liabilities			
Supplies	300	300	300	Bank loans payable	42,667	47,000	22,000
Prepaid expenses	1,667	1,767	1,873	Personal loans payable	0	0	0
Total current assets	37,217	60,734	89,798	Total long-term liabilities	42,667	47,000	22,000
Fixed assets				Total liabilites	55,417	68,217	53,875
Furniture and fixtures	18,000	16,000	14,000	Owner's equity			
Vehicles	33,000	32,780	8,140	Paid-in capital	133,889	62,897	28,068
Equipment	6,750	3,330	0	Retained earnings	(94,339)	(18,271)	29,995
Total fixed assets	57,750	52,110	22,140	Total owner's equity	39,550	44,627	58,063
Total assets	94,967	112,844	111,938	Total liabilities and equity	94,967	112,844	111,938

Figure 11.6

Quick Think—Balance Sheet

1. How much has the owner's equity increased from year 1 to year 3?

____

Assets

Assets are usually divided into two categories: current assets and fixed assets. Current assets are cash or other assets that can quickly be turned into cash or sold, such as accounts receivable and inventory. Fixed assets are sometimes called plant assets. They are relatively fixed or long-lived. Examples include land, buildings, and equipment. These assets typically cannot be converted to cash quickly. Other assets vary according to the business but can include investments the company has made in securities or real estate. A company's assets are valued and added together to calculate its total assets.

Liabilities

Liabilities are divided into two categories: current and long-term. Current liabilities are debts owed that need to be paid in the current fiscal year. These can be debts owed to suppliers, interest owed on short-term loans, and taxes owed. Long-term liabilities are any debts owed that are not due to be paid in the current fiscal year. Mortgages or long-term loans are an example. A company's liabilities are added together to calculate its total liability.

Owner's Equity

Owner's equity is what the business owes the owners on a given date. It is simply what is left over when you subtract the total liabilities from total assets.

Financial Analysis

Once you create your pro forma financial statements, you need to provide an analysis of the company's financial strength. There are several key indicators that investors will be interested in.

Break-Even Analysis

Break even is the point at which a company's costs exactly match its sales volume. This is the point where the company has neither lost money nor made money. You calculate break even in the following way.

$$\frac{\text{Total fixed costs}}{\text{Contribution margin}} = \text{Break even}$$

The contribution margin is the amount that sales exceeds the cost of goods sold and the variable expenses. It is expressed as a percent and calculated in the following way.

$$\frac{\text{Variable costs}}{\text{Sales revenue}} = \text{Contribution margin}$$

For example, imagine you sold a product for \$1,000. It cost you \$400 in variable costs to make, sell, and distribute the product. Your fixed costs are \$5,000. To calculate the break-even point, first calculate the contribution margin:

$$\frac{\$400}{\$1{,}000} = .40 \text{ or } 40\%$$

Then calculate the break-even point.

$$\text{Break even} = \frac{\$5{,}000}{.40} = \$12{,}500$$

This calculation says that you need to generate \$12,500 in sales revenue to offset your fixed and variable costs to break even.

In a business plan, the break-even analysis is often presented as a line graph as shown in Figure 11.7. Fixed costs are represented in the graph by the horizontal line because fixed costs remain constant as sales increases. Variable costs increase as sales increase. The diagonal line labeled Total cost represents the fixed costs plus the variable costs at certain levels of sales volume. Sales revenue is plotted as a 45-degree line that starts at zero and progresses upward. The point where the revenue line intersects the total cost line is the break-even point. In this case, the break-even point is approximately $625,000.

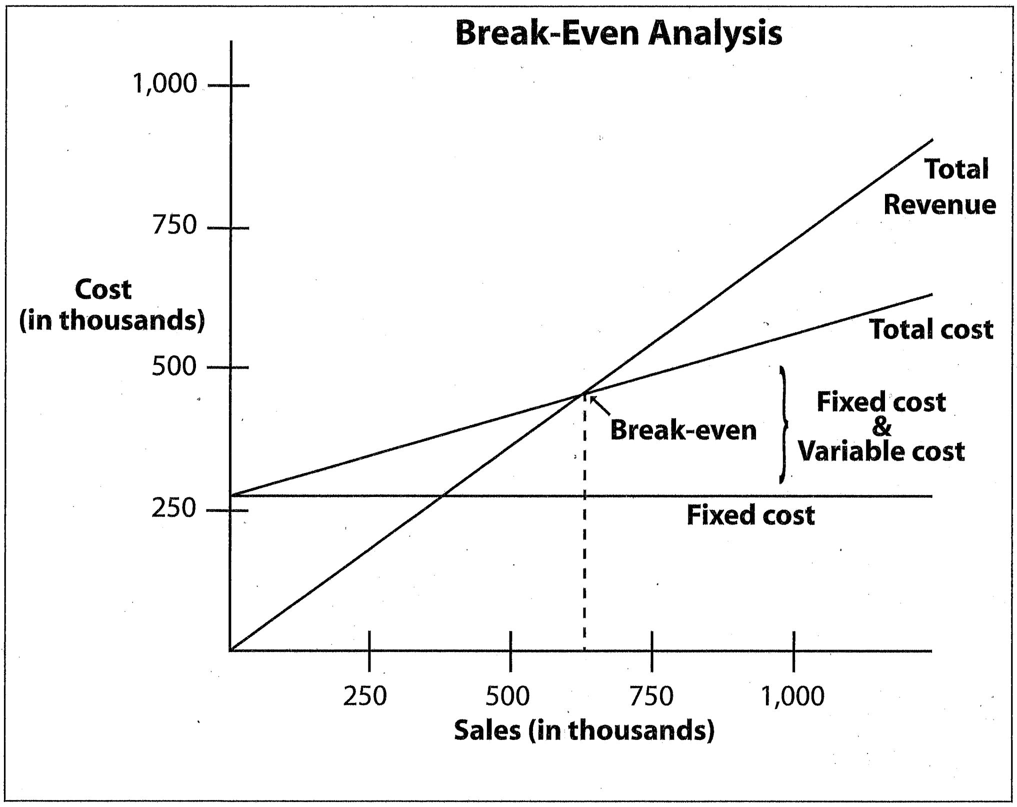


Figure 11.7

Liquidity Analysis

The liquidity of a business is the ability to meet financial obligations. These measures show balance sheet relationships between current assets and current liabilities. Creditors and investors use these ratios to determine whether to provide credit or investment in your company. They will compare these ratios with those of previous periods and with industry standards.

One measure of liquidity is the measure of the excess of current assets over current liabilities. This is called the net working capital. The more net working capital a company has, the less risky it is because it can pay for its current liabilities. It is calculated in the following way.

Current assets – Current liabilities = Net working capital

Another measure of liquidity is the current ratio. It is considered a more dependable indicator of liquidity than the net working capital.

$$\frac{\text{Current assets}}{\text{Current liabilities}} = \text{Current ratio}$$

A higher ratio means more liquidity. An acceptable ratio varies by industry, but generally a ratio of 2.0 is acceptable. This would allow a company to lose 50 percent of its current assets and still cover its current liabilities.

A tougher test of liquidity is the quick ratio. The quick ratio deducts inventory from the current assets. Inventory is the most difficult current asset to dispose of quickly. A quick ratio of 1.0 or greater is generally acceptable.

$$\text{Quick ratio} = \frac{\text{Current assets} - \text{Inventory}}{\text{Current liabilities}}$$

Profitability Analysis

There are several useful measures of profitability. Investors and creditors will use these to judge the projected profitability of your business. These measures are calculated using the information from your income statements.

The gross profit margin indicates the percentage of each sales dollar remaining after the business has paid for the goods to produce the product. This analysis will help you determine if you are marking up your goods sold enough to make a profit.

$$\text{Gross profit margin} = \frac{\text{Gross profit}}{\text{Sales}}$$

Operating profit margin shows the profit from operations, ignoring interest and taxes. This calculation represents the percentage of each sales dollar remaining after you have paid for the cost of goods sold, other variable expenses, and your fixed expenses. This analysis helps you determine if your operating expenses are too high.

$$\text{Operating profit margin} = \frac{\text{Income from operations}}{\text{Sales}}$$

Net profit margin is the measure of profitability taking into account all expenses including interest. It will help you determine if your interest expenses are too high.

$$\text{Net profit margin} = \frac{\text{Net profit}}{\text{Sales}}$$

Debt Analysis

Businesses need money to operate. Often a business uses other people's money in the form of investments or loans. Debt analysis measures how much in debt the business is and its ability to pay for the debt. Two measures are typically used to evaluate debt.

The debt-to-asset ratio shows what the business owes compared to what it owns. An acceptable ratio is usually set by your creditors. For example, a ratio of 50% would indicate that one-half of the company is being financed by other people's money. The higher the ratio, the greater the risk of failure. A high ratio makes it more difficult to borrow money.

$$\text{Debt to asset ratio} = \frac{\text{Total liabilities}}{\text{Total assets}}$$

The debt-to-equity ratio shows what the business owes in relation to the owner's equity. A higher ratio indicates higher risk.

$$\text{Debt to equity ratio} = \frac{\text{Total liabilities}}{\text{Total equity}}$$

Investment Analysis

An owner or investor in a business puts money into the business with the hope of generating profits. This money becomes an asset of the company. A successful business will provide a good return on the assets. The return on investment calculation measures the effectiveness of the business's ability to use the assets to generate profits. The higher the return on investment the better.

$$\frac{\text{Net profit}}{\text{Total assets}} = \text{Return on investment}$$

All of these calculations are helpful indicators of a company's success. To obtain funding from creditors or investors, you will need to demonstrate that your pro forma financial statements are realistic and in line with industry standards. After you create your financial statements, calculate these measures for each year. Compare the results year-to-year. Are the measures improving over time? Then compare the measures to industry standards. Is your business the same, better, or worse than other companies like yours?

You will probably find that some of the assumptions you used to create your financial statements did not provide for a healthy, long-term business. The financial analysis will help you pinpoint potential problem areas. Then you can reassess your assumptions. Maybe you need to generate more sales. Maybe you need to control expenses or debt better. Or maybe your business concept is not viable. It is better to find this out early before investing your time and money.

Student ______________________________ Date ______________________________

Class ______________________________ Teacher ______________________________

CHAPTER 11 VOCABULARY REVIEW

Directions: Match each definition with the correct term. Write the letter next to the term on the line next to the definition.

_______ **1.** the buildings, equipment, tools, and other goods needed to produce a product or the money to buy these items

_______ **2.** the money required to operate the business

_______ **3.** cash outlays that need to be paid even if you don't sell any products

_______ **4.** money required for long-term needs such as starting or expanding a new company

_______ **5.** projected

_______ **6.** cash outlays for things that can change depending on the number of products you sell

_______ **7.** money required to increase business profits

a. working capital

b. pro forma

c. capital

d. growth capital

e. equity capital

f. variable expenses

g. fixed expenses

Student ____________________ Date ____________________

Class ____________________ Teacher ____________________

CHAPTER 11 READING REVIEW

1. Explain the difference between a cash flow statement and an income statement.

2. What does a balance sheet tell a business owner or potential investor?

3. Explain the three different types of capital a business needs.

4. How can an investor ensure that a company's financial statements are reliable?

Student ______________________ Date ______________________

Class ______________________ Teacher ______________________

BUSINESS PLAN PROJECT WORKSHEET 11-1

Sales Revenue Projections

Directions: Project your monthly sales revenue for the first three years. First list all your products sold in the first column. If you have multiple products, use spreadsheet software or make copies of this form to complete your sales projections. Transfer your sales revenue projections to your pro forma financial statements. Use this information to write a summary of sales revenue projections. Add your completed spreadsheet(s) to the supporting documents section of your business plan.

Company Name ______________________

Sales Revenue Projections

Year ______

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Product:													
Units sold													
Selling price													
Sales revenue													
Product:													
Units sold													
Selling price													
Sales revenue													
TOTAL PRODUCT SALES													

Go to **businessplan.glencoe.com** for a template in which you can create your own business plan.

Student ______________________ Date ______________________

Class ______________________ Teacher ______________________

BUSINESS PLAN PROJECT WORKSHEET **11-2**

Product Development Cost Projections

Directions: List all expenses associated with developing your product or service before manufacturing it. If you have multiple products, make copies of this table or create your table using spreadsheet software. Divide the total development cost by 36 months. Place this number in the Amortization line in Worksheet 11-4. Include your completed table(s) in the supporting documents section of your business plan.

Company Name ______________________

Cost of Product Development

Year ______

Development Expenses	Cost Year 1	Cost Year 2	Cost Year 3	Total
TOTAL COST OF DEVELOPMENT				

Go to **businessplan.glencoe.com** for a template in which you can create your own business plan.

Student ______________________ Date ______________________

Class ______________________ Teacher ______________________

BUSINESS PLAN PROJECT WORKSHEET 11-3

Manufacturing Cost Projections

Directions: List all expenses associated with manufacturing your product including raw materials, packaging, etc. If you have multiple products, use spreadsheet software or make copies of this table to complete your manufacturing cost projections. Place each cost per unit number in the Unit cost line in Worksheet 11-4. Include your completed table(s) in the supporting documents section of your business plan.

Company Name ______________________

Manufacturing Costs

Year ________

	Cost Year 1	Cost Year 2	Cost Year 3	Total
Product:				
Total Manufacturing Cost				
Total Number Manufactured				
COST PER UNIT				
Product:				
Total Manufacturing Cost				
Total Number Manufactured				
COST PER UNIT				
Product:				
Total Manufacturing Cost				
Total Number Manufactured				
COST PER UNIT				

@ Go to **businessplan.glencoe.com** for a template in which you can create your own business plan.

Student ____________________ Date ____________________

Class ____________________ Teacher ____________________

BUSINESS PLAN PROJECT WORKSHEET 11-4

Cost of Goods Sold Projections

Directions: Project your monthly cost of goods sold for the first three years. First list all your products sold in the first column. If you have multiple products, use spreadsheet software or make copies of this form to complete your cost of goods sold projections. Transfer this information to your pro forma financial statements. Use this information to write a summary of your projected cost of goods sold. Add your completed spreadsheet(s) to the supporting documents section of your business plan.

Company Name ____________________

Cost of Goods Sold Projections

Year ______

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Product:													
Units sold													
Unit cost (see worksheet 11-3)													
Cost of goods sold													
Product:													
Units sold													
Unit cost (see worksheet 11-3)													
Cost of goods sold													
Product Development Costs Amortization (see worksheet 11-2)													

@ Go to **businessplan.glencoe.com** for a template in which you can create your own business plan.

Student _______________ Date _______________

Class _______________ Teacher _______________

BUSINESS PLAN PROJECT WORKSHEET 11-5

Capital Equipment Cost Projections

Directions: List all expenses associated with purchasing land, buildings, or equipment to be used longer than one year. Make copies of this table, as needed.

Company Name _______________

Capital Equipment Costs

Year _______

Capital Equipment Costs	Cost Year 1	Cost Year 2	Cost Year 3	Total
TOTAL CAPITAL EQUIPMENT COSTS				

Continued on next page

Student ______________________ Date ______________________

Class ______________________ Teacher ______________________

BUSINESS PLAN PROJECT WORKSHEET 11-5

(continued)

1. Estimate the value of the capital equipment at the end of its projected life.

____

2. Subtract the total capital equipment costs from the estimated value at end of life.

Equipment cost – Estimated end-of-life value = Ending value

____________ – ____________ = ____________

3. Divide the ending value of the capital equipment (calculated in #2) by the expected life of the capital equipment in months. ____________

Ending value ÷ Expected life (months) = Monthly depreciation

____________ ÷ ____________ = ____________

4. Place this number in each month of the Depreciation line in Worksheet 11-15.

@ Go to **businessplan.glencoe.com** for a template in which you can create your own business plan.

Student ______________________ Date ______________________

Class ______________________ Teacher ______________________

BUSINESS PLAN PROJECT WORKSHEET 11-6

Salary and Wages Projections

Directions: Project your monthly salary and wage costs for the first three years. If you have multiple employees, use spreadsheet software or make copies of this form to complete your salary and wages projections. Transfer this information to your pro forma financial statements. Use this information to write a summary of your projected salary and wage expenses. Add your completed spreadsheet(s) to the supporting documents section of your business plan.

Company Name ______________________

Salary and Wage Projections

Year ______

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Employee:													
Wage or salary													
Payroll taxes													
Benefits (Insurance, 401K, etc.)													
Other													
Total													
Employee:													
Wage or salary													
Payroll taxes													
Benefits (Insurance, 401K, etc.)													
Other													
Total													
TOTAL WAGES AND SALARY													

@ Go to **businessplan.glencoe.com** for a template in which you can create your own business plan.

Student ______________________ Date ______________________

Class ______________________ Teacher ______________________

BUSINESS PLAN PROJECT WORKSHEET 11-7

Selling and Marketing Expenses

Directions: Project your monthly selling and marketing expenses for the first three years. Use spreadsheet software or three copies of this form to complete your selling and marketing expenses projections. Transfer this information to your pro forma financial statements. Use this information to write a summary of your projected selling and marketing expenses. Add your completed spreadsheet(s) to the supporting documents section of your business plan.

Company Name ______________________

Selling and Marketing Expenses

Year ______

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Selling Expenses													
Selling commission													
Travel													
Automobile													
Other													
Total Selling Expenses													
Marketing Expenses													
Advertising													
Promotion													
Other													
Total Marketing Expenses													
Total Selling and Marketing Expenses													

@ Go to **businessplan.glencoe.com** for a template in which you can create your own business plan.

Student ______________________ Date ______________________

Class ______________________ Teacher ______________________

BUSINESS PLAN PROJECT WORKSHEET 11-8

Operating Expenses

Directions: Project your monthly operating expenses for the first three years. Use spreadsheet software or three copies of this form to complete your operating expenses projections. Transfer this information to your pro forma financial statements. Use this information to write a summary of your projected operating expenses. Add your completed spreadsheet(s) to the supporting documents section of your business plan.

Company Name ______________________

Operating Expenses

Year ______

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Operating Expenses													
Rent													
Utilities													
Repairs													
Insurance													
Other													
Total Operating Expenses													

@ Go to **businessplan.glencoe.com** for a template in which you can create your own business plan.

Student ______________________ Date ______________________

Class ______________________ Teacher ______________________

BUSINESS PLAN PROJECT WORKSHEET 11-9

Other Expenses

Directions: Project other monthly expenses for the first three years. Use spreadsheet software or three copies of this form to complete your projections. Transfer this information to your pro forma financial statements. Use this information to write a summary of your projected other expenses. Add your completed spreadsheet(s) to the supporting documents section of your business plan.

Company Name ______________________

Other Expenses

Year ______

Other Expenses	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Total
Total Other Expenses													

Go to **businessplan.glencoe.com** for a template in which you can create your own business plan.

Student ______________________________ Date ______________________________

Class ______________________________ Teacher ______________________________

BUSINESS PLAN PROJECT WORKSHEET 11-10

List Your Assumptions

Directions: List your assumptions for the first three years. Use this information in your pro forma financial statements.

Company Name ______________________________

Assumptions
Years 1 to 3

Account	Year 1 Assumption	Year 2 Assumption	Year 3 Assumption
Accounts receivable			
Accounts payable			
Bad debt			
Other			

@ Go to **businessplan.glencoe.com** for a template in which you can create your own business plan.

Student ____________________ Date ____________________

Class ____________________ Teacher ____________________

BUSINESS PLAN PROJECT WORKSHEET 11-11

Explain the Use of Start-Up Funds

Directions: List how you will use funds to start your business. Make copies of this table, as needed, or use spreadsheet software to create a table like the one below. Use this information to write a summary about your uses of funds. Add your completed table(s) to the supporting documents section of your business plan.

Start-Up Expenses	Amount
Equipment and Facilities	
Other Expenses	

Go to **businessplan.glencoe.com** for a template in which you can create your own business plan.

Student ______________________ Date ______________________

Class ______________________ Teacher ______________________

BUSINESS PLAN PROJECT WORKSHEET 11-12

Explain the Sources of Funds

Directions: List your sources of funds. Make copies of this table, as needed, or use spreadsheet software to develop a table like the one below. Use this information to write a summary about your sources and uses of funds. Add your completed table(s) to the supporting documents section of your business plan.

Working Capital	**Amount**
Growth Capital	
Equity Capital	

Go to **businessplan.glencoe.com** for a template in which you can create your own business plan.

Student ____________________ Date ____________________

Class ____________________ Teacher ____________________

BUSINESS PLAN PROJECT WORKSHEET 11-13

Prepare Pro Forma Monthly Cash Flow Statements

Directions: Use spreadsheet software to create a monthly cash flow spreadsheet like the one below (see page 160). Complete the spreadsheet for each of the first three years of operation. Use this information to write a summary about your projected cash flow needs. Include your completed statement in the supporting documents section of your business plan.

Pro Forma Cash Flow Statement

Year 1

	Mo. 1	Mo. 2	Mo. 3	Mo. 4	Mo. 5	Mo. 6	Mo. 7	Mo. 8	Mo. 9	Mo. 10	Mo. 11	Mo. 12	Total
Cash receipts													
Sales													
Other													
Total cash receipts													
Cash disbursements													
Cost of goods sold													
Salaries and wages													
Operating supplies													
Repairs and maintenance													
Advertising and promotion													
Bad debts													
Rent													
Utilities													
Insurance													
General office													
Licenses													
Interest													
Debt service (principle)													
Total cash disbursements													
Net cash flow													

@ Go to **businessplan.glencoe.com** for a template in which you can create your own business plan.

Student ______________________ Date ______________________

Class ______________________ Teacher ______________________

BUSINESS PLAN PROJECT WORKSHEET 11-14

Prepare Pro Forma Year Two and Three Quarterly Cash Flow Statements

Directions: Use spreadsheet software to create a quarterly cash flow statement like the one below (see page 161). Use the monthly cash flow figures you generated in Worksheet 11-13 to prepare your quarterly cash flow statement for the second and third years of operation. Use this information to write a summary about your projected cash flow needs. Include your completed statement(s) in the supporting documents section of your business plan.

	Year 2				Year 3			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Cash receipts								
Sales								
Other								
Total cash receipts								
Cash disbursemens								
Cost of goods sold								
Salaries and wages								
Operating supplies								
Repairs and maintenance								
Advertising and promotion								
Bad debts								
Rent								
Utilities								
Insurance								
General office								
Licenses								
Interest								
Debt service (principle)								
Total cash disbursements								
Net cash flow								

@ Go to **businessplan.glencoe.com** for a template in which you can create your own business plan.

Student ____________________ Date ____________________

Class ____________________ Teacher ____________________

BUSINESS PLAN PROJECT WORKSHEET 11-15

Prepare Pro Forma Monthly Income Statements

Directions: Use spreadsheet software to create a monthly income statement like the one below (see page 162). Prepare a monthly pro forma income statement for the first three years of operation. Use this information to write a summary about the projected profit or loss of your company. Include your completed statements in the supporting documents section of your business plan.

	Year 1											
	Mo. 1	Mo. 2	Mo. 3	Mo. 4	Mo. 5	Mo. 6	Mo. 7	Mo. 8	Mo. 9	Mo. 10	Mo. 11	Mo. 12
Sales												
Less: Cost of goods sold												
Gross profit												
Less: Operating expenses												
Salaries and wages												
Operating supplies												
Repairs and maintenance												
Advertising and promotion												
Bad debts												
Rent												
Utilities												
Insurance												
General office												
Licenses												
Interest												
Depreciation												
Total operating expenses												
Profit (loss) before taxes												
Less: Taxes												
Net profit (loss)												

Go to **businessplan.glencoe.com** for a template in which you can create your own business plan.

Student ______________________ Date ______________________

Class ______________________ Teacher ______________________

BUSINESS PLAN PROJECT WORKSHEET 11-16

Prepare Pro Forma Year Two and Three Quarterly Income Statements

Directions: Use spreadsheet software to create a quarterly income statement like the one below (see page 163). Use the monthly income statement figures you generated in Worksheet 11-15 to prepare a year two and three pro forma income statement. Use this information to write a summary about the projected profit or loss of your company. Include your completed statements in the supporting documents section of your business plan.

	Year 2				Year 3			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Sales								
Less: Cost of goods sold								
Gross profit								
Less: Operating expenses								
Salaries and wages								
Operating supplies								
Repairs and maintenance								
Advertising and promotion								
Bad debts								
Rent								
Utilities								
Insurance								
General office								
Interest								
Depreciation								
Total operating expenses								
Profit (loss) before taxes								
Less: Taxes								
Net profit (loss)								

@ Go to **businessplan.glencoe.com** for a template in which you can create your own business plan.

Student ____________________ Date ____________________

Class ____________________ Teacher ____________________

BUSINESS PLAN PROJECT WORKSHEET 11-17

Prepare Balance Sheets

Directions: Prepare balance sheets for the end of the first three years of operation (see page 166). Develop your balance sheets using spreadsheet software or three copies of the form below. Use this information to write a summary about your projected balance sheets. Include your completed statements in the supporting documents section of your business plan.

End of:	Year 1	Year 2	Year 3		Year 1	Year 2	Year 3
Assets				**Liabilities**			
Current assets				Accounts Payable			
Cash	____	____	____	Notes payable	____	____	____
Accounts receivable	____	____	____	Total current liabilites	____	____	____
Inventory	____	____	____	Long-term liabilities			
Supplies	____	____	____	Bank loans payable	____	____	____
Prepaid expenses	____	____	____	Personal loans payable	____	____	____
Total current assets	____	____	____	Total long-term liabilities	____	____	____
Fixed assets				Total liabilites			
Furniture and fixtures				Owner's equity			
Vehicles				Paid-in capital			
Equipment	____	____	____	Retained earnings	____	____	____
Total fixed assets	____	____	____	Total owner's equity	____	____	____
Total assets	____	____	____	Total liabilities and equity	____	____	____

Go to **businessplan.glencoe.com** for a template in which you can create your own business plan.

Student ______________________ Date ______________________

Class ______________________ Teacher ______________________

BUSINESS PLAN PROJECT WORKSHEET 11-18

Prepare a Break-Even Analysis

1. Calculate the break-even point for your business.

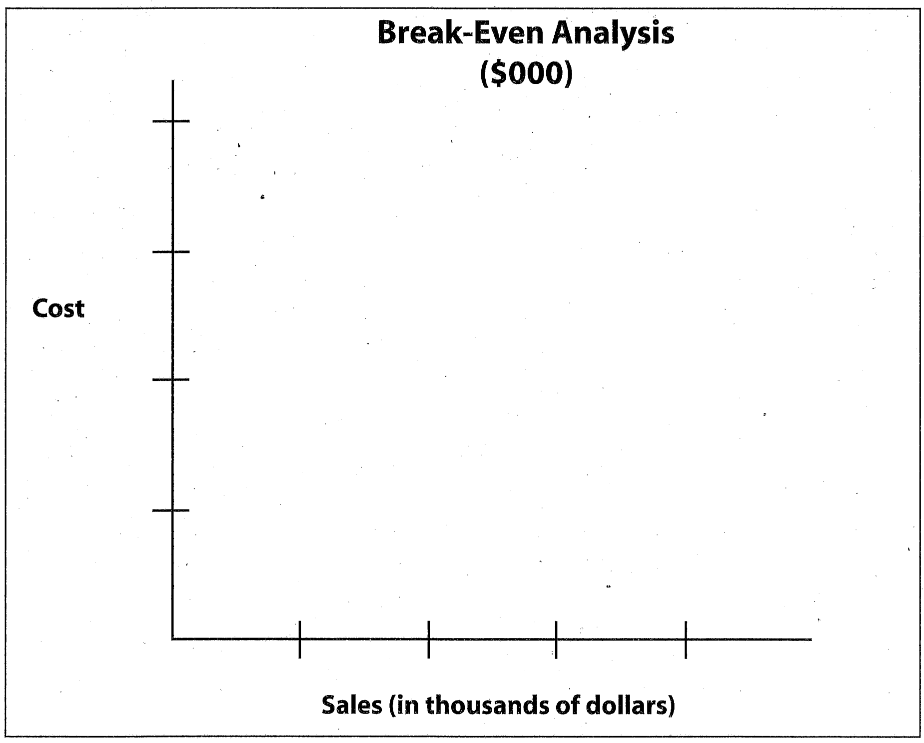
$$\frac{\text{Variable costs}}{\text{Sales revenue}} = \text{Contribution margin}$$

______ ÷ ______ = ______

$$\frac{\text{Total fixed costs}}{\text{Contribution margin}} = \text{Break even}$$

______ ÷ ______ = ______

2. Plot the break-even point on a line graph. Create it using software or on paper.



3. Use this information to write a summary about your break-even analysis. Include the calculations and line graph in your summary.

@ Go to **businessplan.glencoe.com** for a template in which you can create your own business plan.

Student ____________________ Date ____________________

Class ____________________ Teacher ____________________

BUSINESS PLAN PROJECT WORKSHEET 11-19

Prepare a Financial Analysis

Directions: Calculate and record the following financial measures for the first three years of operation. Include industry standards for each one. Use this information to write a summary about your financial analysis. Add your completed table to the supporting documents section of your business plan.

Measure	Year 1	Year 2	Year 3	Industry Standard
Liquidity				
Net working capital				
Current ratio				
Quick ratio				
Profitability				
Gross profit margin				
Operating profit margin				
Net profit margin				
Debt				
Debt to asset ratio				
Debt to equity ratio				
Investment				
Return on investment				

@ Go to **businessplan.glencoe.com** for a template in which you can create your own business plan.