

COMPLETION

1. Instead of rushing into a business right away, it is wise to develop a _____.

ANS: business plan

PTS: 1 DIF: Easy TOP: Planning in a new business

2. A _____ describes a business' goals and its plans for achieving those goals.

ANS: business plan

PTS: 1 DIF: Easy TOP: Planning in a new business

3. _____ refers to the uncertainty about the future operations of a business.

ANS: Risk

PTS: 1 DIF: Easy TOP: Planning in a new business

4. _____ is money that investors will receive back from their investment and credit decisions.

ANS: Return

PTS: 1 DIF: Easy TOP: Planning in a new business

5. The _____ shows how the business will make sales and how it will influence and respond to market conditions.

ANS: marketing plan

PTS: 1 DIF: Easy TOP: Planning in a new business (Marketing plan)

6. The _____ describes how the business will promote, price and distribute the product.

ANS: marketing strategy

PTS: 1 DIF: Easy TOP: Planning in a new business (Marketing plan)

7. The _____ describes the predicted growth, market share and sales of the business' products by period.

ANS: sales forecast

PTS: 1 DIF: Easy TOP: Planning in a new business (Marketing plan)

8. The _____ section of a business plan includes a description of the relationships between the business, its suppliers, its customers, as well as a description of how the business will develop, service, protect and support its products or services.

ANS: business operations

PTS: 1 DIF: Easy TOP: Planning in a new business (Operating plan)

9. The business operations section of the business plan helps _____ evaluate the entrepreneur's ability to successfully carry out the idea.

ANS: outside users

PTS: 1 DIF: Moderate TOP: Planning in a new business (Operating plan)

10. The main problem of environmental management accounting is that there is a lack of a _____ of environmental costs.

ANS: standard definition

PTS: 1 DIF: Moderate TOP: Planning in a new business (Environmental management plan)

11. The _____ section of a business plan identifies the business' capital requirements and sources of capital, as well as describing the business' projected financial performance.

ANS: financial plan

PTS: 1 DIF: Moderate TOP: Planning in a new business (Financial plan)

12. _____ is the business' funding.

ANS: Capital

PTS: 1 DIF: Moderate TOP: Planning in a new business (Sources of capital)

13. _____ is the business' funding that will be repaid within a year or less.

ANS: Short-term capital

PTS: 1 DIF: Moderate TOP: Planning in a new business (Sources of capital)

14. Credit from suppliers is a source of _____ for the business.

ANS: Short-term capital

PTS: 1 DIF: Moderate TOP: Planning in a new business (Sources of capital)

15. _____ is the business' funding that will be repaid after more than a year.

ANS: Long-term capital

PTS: 1 DIF: Moderate TOP: Planning in a new business (Sources of capital)

16. It is important that the financial plan is _____ with the information in the other sections of the business plan.

ANS: consistent

PTS: 1 DIF: Moderate TOP: Planning in a new business (Projected financial performance)

17. The financial performance section of the financial plan includes projected financial statements supported by _____ and _____.

ANS: cost-volume-profit analysis; budgets

PTS: 1 DIF: Moderate TOP: Planning in a new business (Projected financial performance)

18. _____ shows how profit is affected by changes in sales volume, selling price of products and the various costs of the business.

ANS: Cost-volume-profit analysis

PTS: 1 DIF: Moderate TOP: Cost-volume-profit planning (CVP analysis)

19. _____ are constant in total for a specific time period and are not affected by differences in volume during that same time period.

ANS: Fixed costs

PTS: 1 DIF: Moderate TOP: Cost-volume-profit planning (Cost behaviour, fixed costs)

20. The total _____ is the difference between the total sales revenue and total variable costs.

ANS: contribution margin

PTS: 1 DIF: Difficult TOP: Cost-volume-profit planning (Profit calculation, Contribution margin)

TRUE/FALSE

1. The first step in starting a business is to develop a detailed business plan.

ANS: T PTS: 1 DIF: Easy TOP: Planning in a new business

2. The first step in starting a business is to set up a corporation.

ANS: F (first step should be to develop a detailed business plan)

PTS: 1 DIF: Easy TOP: Planning in a new business

3. A business plan is a static document. Once created it should not need to be updated.

ANS: F (a business plan is an evolving report continuing throughout the life of the business)

PTS: 1 DIF: Easy TOP: Planning in a new business

4. A business plan typically includes a description of the business, a marketing plan, an operating plan, an environmental management plan and a financial plan.

ANS: T PTS: 1 DIF: Moderate TOP: Planning in a new business

5. A business plan should be viewed as an opportunity to identify mistakes before they could happen.

ANS: T PTS: 1 DIF: Moderate TOP: Planning in a new business

6. The operating plan provides evidence of demand for the business' products or services.

ANS: F (evidence of demand for products or services is contained in the marketing plan)

PTS: 1 DIF: Moderate TOP: Planning in a new business (Marketing plan)

7. Projecting a business' financial performance involves uncertainty but if guidelines are followed this uncertainty can be eliminated in the financial information.

ANS: F (guidelines will help financial information to be more dependable, but all uncertainty cannot be eliminated in a projection)

PTS: 1 DIF: Moderate TOP: Planning in a new business (Projected financial performance)

8. Cost-volume-profit analysis is based on a simple profit calculation involving revenues, expenses, assets and liabilities.

ANS: F (CVP analysis is based on a simple profit calculation involving revenues and costs only)

PTS: 1 DIF: Moderate TOP: Cost-volume-profit planning (CVP analysis)

9. The relationship between an activity's cost and its profit helps us determine the cost's behaviour pattern.

ANS: F (The relationship between *cost* and *volume* help determine the cost's behaviour pattern)

PTS: 1 DIF: Moderate TOP: Cost-volume-profit planning (Cost behaviour)

10. A fixed cost does not respond to changes in an activity for a specific time period such as sales volume.

ANS: T PTS: 1 DIF: Moderate TOP: Cost-volume-profit planning (Cost behaviour, fixed costs)

11. A fixed cost responds directly to changes in an activity for a specific time period such as sales volume.

ANS: F (a fixed cost *does not* respond to changes in an activity for a specific time period such as sales volume.)

PTS: 1 DIF: Moderate TOP: Cost-volume-profit planning (Cost behaviour, Fixed costs)

12. The relevant range is the range of activity levels over which the particular fixed cost behaviour pattern remains valid.

ANS: T PTS: 1 DIF: Moderate TOP: Cost-volume-profit planning
(Cost behaviour, Fixed costs)

13. A variable cost responds directly to changes in an activity such as sales volume.

ANS: T PTS: 1 DIF: Moderate TOP: Cost-volume-profit planning
(Cost behaviour, Variable costs)

14. Total costs are the sum of the fixed costs and variable costs.

ANS: T PTS: 1 DIF: Moderate TOP: Cost-volume-profit planning
(Cost behaviour, Total costs)

15. Total contribution margin is the amount remaining after a sale to contribute to covering fixed costs.

ANS: T PTS: 1 DIF: Moderate TOP: Cost-volume-profit planning
(Contribution margin)

16. Sales less fixed costs equal contribution margin.

ANS: F (Sales less *variable* costs equal contribution margin)
PTS: 1 DIF: Moderate TOP: Cost-volume-profit planning (Contribution margin)

17. Sales less variable costs equal contribution margin.

ANS: T PTS: 1 DIF: Moderate TOP: Cost-volume-profit planning
(Contribution margin)

18. The break-even point is where total revenue equals total costs.

ANS: T PTS: 1 DIF: Moderate TOP: Using CVP analysis (Finding the break-even point)

19. The break-even point is where total revenue equals variable costs.

ANS: F (The break-even point is where total revenue equals *total* costs)
PTS: 1 DIF: Moderate TOP: Using CVP analysis (Finding the break-even point)

20. The break-even point is where total revenue is less than total costs.

ANS: F (The break-even point is where total revenue *equals* total costs)
PTS: 1 DIF: Moderate TOP: Using CVP analysis (Finding the break-even point)

21. The break-even point is where total revenue equals target profit.

ANS: F (The break-even point is where total revenue equals *total costs*)
PTS: 1 DIF: Moderate TOP: Using CVP analysis (Finding the break-even point)

22. The break-even point is sales volume at which the total contribution margin is equal to total fixed costs.

ANS: T PTS: 1 DIF: Moderate TOP: Using CVP analysis (Finding the unit sales volume to achieve a target profit)

23. Each additional unit sold above the break-even sales volume increase profit by the contribution margin per unit.

ANS: T PTS: 1 DIF: Difficult TOP: Using CVP analysis (Finding the unit sales volume to achieve a target profit)

24. Each additional unit sold above the break-even sales volume increase profit by the sales price per unit.

ANS: F (Each additional unit sold above the break-even sales volume increase profit by the *contribution margin* per unit)

PTS: 1 DIF: Difficult TOP: Using CVP analysis (Finding the unit sales volume to achieve a target profit)

25. Each additional unit sold above the break-even sales volume increase profit by the variable cost per unit.

ANS: F (Each additional unit sold above the break-even sales volume increase profit by the *contribution margin* per unit)

PTS: 1 DIF: Difficult TOP: Using CVP analysis (Finding the unit sales volume to achieve a target profit)

26. CVP analysis is a helpful tool, but is most effective when used in conjunction with critical thinking.

ANS: T PTS: 1 DIF: Easy TOP: Other planning issues

27. Before making a pricing decision, one should consider the impact on customers' interest in the product.

ANS: T PTS: 1 DIF: Moderate TOP: Other planning issues

28. If a business were concerned about raising the price of their goods, CVP analysis would help determine the impact on profits and the resulting changes in costs.

ANS: T PTS: 1 DIF: Difficult TOP: What can happen if a business doesn't have a business plan

29. CVP should be the only factor that influences business decisions.

ANS: F (CVP analysis is just one factor influencing business decisions, e.g. should also consider non-financial information)

PTS: 1 DIF: Difficult TOP: Business issues and values: waste not, want not

30. After weighing all factors surrounding alternatives, a manager may choose a more socially acceptable alternative resulting in a less favourable profit.

ANS: T PTS: 1 DIF: Easy TOP: Business issues and values: waste not, want not

MULTIPLE CHOICE

1. A business plan:
- a. never needs updating once it has been developed.
 - b. is only useful for companies.
 - c. is another name for a financial plan.
 - d. should be developed as the first step in starting a business.

ANS: D (the first step in starting any form of business, not just a corporation, is to develop a business plan, which will need to be updated regularly)

PTS: 1 DIF: Moderate TOP: Planning in a new business

2. Which of the following would NOT be included in a typical business plan?
- a. The marketing plan.
 - b. The financial plan.
 - c. The weekly sales plan.
 - d. The operating plan.

ANS: C (typical business plans include a description of the business, a marketing plan, an operating plan, an environmental management plan and a financial plan)

PTS: 1 DIF: Easy TOP: Planning in a new business

3. Investors and creditors have the following two related concerns when they are making investment and credit decisions:
- a. sales and profit.
 - b. performance and position.
 - c. risk and return.
 - d. environment and return.

ANS: C (investors and creditors are always concerned with the related issues of risk and return)

PTS: 1 DIF: Easy TOP: Planning in a new business

4. The financial plan describes the projected financial performance and:
- a. shows how the business will respond to market conditions.
 - b. how the business will develop its products or services.
 - c. identifies capital requirements and sources of capital.
 - d. provides evidence of demand for products or services.

ANS: C (other alternatives are from marketing plan and operating plan)

PTS: 1 DIF: Moderate TOP: Planning in a new business (Financial plan)

5. For a specified time period, fixed costs:
- a. are not affected by differences in sales volume.
 - b. move in the opposite direction to changes in sales volume.
 - c. change in proportion with changes in sales volume.
 - d. are fixed per unit of sales volume.

ANS: A (fixed costs do not respond to changes in an activity for a specific time period such as sales volume)

PTS: 1 DIF: Moderate TOP: Cost-volume-profit planning (Cost behaviour, fixed costs)

6. Which of the following best represents an example of a fixed cost?

- a. Equipment.
- b. Cost of products sold to customers.
- c. Salary plus commission employees.
- d. Telephone usage.

ANS: A (For a specified period of time, equipment will not change in relation to sales volume)

PTS: 1 DIF: Difficult TOP: Cost-volume-profit planning (Cost behaviour, fixed costs)

7. Total variable costs:
- a. do not respond to changes in volume.
 - b. move in the opposite direction to changes in volume.
 - c. change in direct proportion with changes in volume.
 - d. will always be the same from one period to the next.

ANS: C (variable costs respond directly to changes in an activity such as sales volume)

PTS: 1 DIF: Moderate TOP: Cost-volume-profit planning (Cost behaviour, Variable costs)

8. Which of the following best represents an example of a variable cost?
- a. Equipment.
 - b. Cost of products sold to customers.
 - c. Manager's salary.
 - d. Rent.

ANS: B (Cost of products sold to customers will vary directly with changes in sales volume)

PTS: 1 DIF: Easy TOP: Cost-volume-profit planning (Cost behaviour, Variable costs)

9. Which of the following costs change directly in proportion to sales volume?
- a. Both fixed costs and variable costs.
 - b. Total variable costs.
 - c. Contribution margin per unit.
 - d. Fixed costs.

ANS: B (variable costs respond directly to changes in an activity such as sales volume, while fixed costs do not)

PTS: 1 DIF: Moderate TOP: Cost-volume-profit planning (Cost behaviour, Variable costs)

10. The unit sales volume at which a business earns zero profit is called:

- a. Zero-profit point.
- b. Total costs.
- c. Contribution margin per unit.
- d. Break-even point.

ANS: D (BE point is where profit equals zero, i.e. sales revenue is just enough to cover total costs)

PTS: 1 DIF: Easy TOP: Cost-volume-profit planning (Profit calculation)

11. The definition of contribution margin per unit is:

- a. Selling price per unit – variable cost per unit.
- b. Selling price per unit – fixed costs.
- c. Selling price per unit – total costs.
- d. Variable cost per unit – fixed cost per unit.

ANS: A (CM per unit is SP per unit less VC per unit)

PTS: 1

DIF: Easy

TOP: Cost-volume-profit planning (Contribution margin)

12. The profit equation for a given sales volume is:
- [Selling price per unit x volume] + [variable cost per unit x volume] – total fixed costs.
 - [Selling price per unit x volume] – [break even point] – total fixed costs.
 - [Selling price per unit x volume] + [break even point] + total fixed costs.
 - [Selling price per unit x volume] – [variable cost per unit x volume] – total fixed costs.

ANS: D (Profit is sales revenue less total costs, i.e. both fixed and variable)

PTS: 1

DIF: Moderate

TOP: Cost-volume-profit planning (Profit calculation (equation form))

13. Barb's Best Pies sells a meat pie for \$5.00. Variable costs are \$3.00 per unit and fixed costs for the period are \$4000. The profit on the 2001st pie sold is:
- \$2.00.
 - \$5.00.
 - \$3.00.
 - \$ - 0 -.

ANS: A ($(\$5 \times 2001) - (\$3 \times 2001) - \$4000$)

PTS: 1

DIF: Difficult

TOP: Cost-volume-profit planning (Profit calculation (equation form))

14. Widget World makes a widget that is sells for \$10 per unit. The variable costs are \$7 per unit. Assuming the business has normal fixed costs, and the break-even point is 350 units, what are the total costs at break even?
- \$4500.
 - \$3500.
 - \$12 000.
 - \$7500.

ANS: B (At break-even, total sales revenue equals total costs, so $\$10 \times 350 \text{ units} = \3500)

PTS: 1

DIF: Difficult

TOP: Using CVP analysis (Finding the break-even point)

Example 2.1

The information below is used for the following problems.

Leslie's Soccer Balls sells soccer balls for \$20 each and incurs variable costs of \$15 per ball. Leslie's break-even point is 40 000 units.

15. Refer to Example 2.1. What is the total of Leslie's fixed costs?
- \$2 000.
 - \$8 000.
 - \$200 000.
 - \$800 000.

ANS: C (At break-even, total fixed costs = CM per unit x sales volume, so $(\$20 - \$15) \times 40\,000 \text{ units} = \$200\,000$)

PTS: 1

DIF: Difficult

TOP: Using CVP analysis (Finding the break-even point)

16. Refer to Example 2.1. What is Leslie's profit when 50 000 units are sold?
- \$10 000.
 - \$50 000.
 - \$250 000.

d. \$1 000 000.

ANS: B (Total CM less total costs, so $(\$20 - \$15) \times 50\,000 - \$200\,000 = \$50\,000$, OR as 10 000 units over break-even point, $10\,000 \text{ units} \times \text{CM per unit of } \$5 = \$50\,000$)

PTS: 1 DIF: Difficult TOP: Using CVP analysis (Estimating profit at given unit sales volume)

17. Refer to Example 2.1. What is Leslie's profit when 25 000 units are sold?

- a. \$500 000.
- b. \$125 000.
- c. \$75 000 loss.
- d. \$300 000 loss.

ANS: C (Total CM less total costs, so $(\$20 - \$15) \times 25\,000 - \$200\,000 = \$75\,000 \text{ loss}$, OR as sales volume is 25 000 units under break-even point, $25\,000 \text{ units} \times \text{CM per unit of } \$5 = \$75\,000 \text{ loss}$)

PTS: 1 DIF: Difficult TOP: Using CVP analysis (Estimating profit at given unit sales volume)

Example 2.2

The information below is used for the following problems.

Garrison's Gaskets has variable costs of \$3 per unit and fixed costs of \$40 000. Garrison's selling price is \$5 per unit.

18. Refer to Example 2.2. What is Garrison's break-even point?

- a. 8000 units.
- b. 13 333 units.
- c. 20 000 units.
- d. 80 000 units.

ANS: C (BE point = total fixed costs / CM per unit, so $\$40\,000 / (\$5 - \$3) = 20\,000 \text{ units}$)

PTS: 1 DIF: Easy TOP: Using CVP analysis (Finding the break-even point)

19. Refer to Example 2.2. How many units will Garrison's have to sell in order to earn a profit of \$100 000?

- a. 20 000 units.
- b. 50 000 units.
- c. 70 000 units.
- d. 200 000 units.

ANS: C (Target profit in units = $(\text{Total fixed costs} + \text{desired profit}) / \text{CM per unit}$, so $(\$40\,000 + \$100\,000) / (\$5 - \$3) = 70\,000 \text{ units}$)

PTS: 1 DIF: Moderate TOP: Using CVP analysis (Finding the unit sales volume to achieve a target profit)

20. Refer to Example 2.2. How much profit will Garrison's earn if it cuts its selling price to \$4 per unit, and sells 100 000 units?

- a. \$60 000.
- b. \$100 000.
- c. \$360 000.
- d. \$400 000.

ANS: A (Total CM less total costs, so $(\$4 - \$3) \times 100\,000 - \$40\,000 = \$60\,000$)

PTS: 1 DIF: Moderate TOP: Using CVP analysis (Estimating profit at given unit sales volume)

sales volume)

SHORT ANSWER

1. What are the three main purposes of a business plan? Discuss each of the three purposes.

ANS:

First, the business plan helps the entrepreneur visualise and organise the business and its operations. It helps to evaluate the plan, develop new ideas, and refine the plan. Mistakes may be identified and corrected prior to implementing the plan.

Second, the business plan serves as a 'benchmark' for measuring the actual performance of the business. Plans for future activities can then be modified.

Third, the business plan helps the business obtain financing. The business plan helps creditors and investors assess the expected risk and return associated with the business.

PTS: 1 DIF: Moderate TOP: Planning in a new business

2. What are the two primary concerns of investors? Discuss each.

ANS:

One concern is the level of risk associated with the investment. Risk refers to the uncertainty existing about the future operations of the business. The other concern is return. Return refers to the money that the investor will receive back from their investment and credit decisions.

PTS: 1 DIF: Moderate TOP: Planning in a new business

3. What are the five parts of the business plan? Discuss each.

ANS:

The five parts of the business plan are a description of the business, a marketing plan, an operating plan, an environmental management plan and a financial plan.

The description of the business discloses the type of business and product. It describes how the business is organised. It discloses where the business is located. The objectives of the business are listed, along with potential customers.

The marketing plan shows how the business will influence and respond to market conditions. It provides evidence of the demand for the business' product or services. It describes the current and expected competition in the market and relevant government regulations.

The operating plan includes a description of the relationships between the business, its suppliers, and its customers, along with a description of how the business will develop, service, protect and support its products or services. It also includes any other influences on the operations of the business.

The environmental management plan looks at the financial and environmental performance of business through the development and implementation of accounting systems and practices that reduce the environmental impacts of business activities.

The financial plan discloses the capital requirements and sources of capital, and describes the business' projected financial performance.

PTS: 1

DIF: Difficult

TOP: Planning in a new business

4. What is the purpose of the description of the business section of the business plan?

ANS:

The description of business section of the business plan discloses the type of business and product. It describes how the business is organised. It discloses where the business is located. The objectives of the business are listed, along with potential customers. The organisation of a business and its personnel can have a major impact on the success of the business. The investors need to be able to evaluate the items contained in this part of the business plan in order to assess the long-term potential of the business.

PTS: 1

DIF: Moderate

TOP: Planning in a new business

5. What is the purpose of the marketing plan section of the business plan?

ANS:

The marketing section of the business plan shows how the business will influence and respond to market conditions. It provides evidence of the demand for the business' product or services. It describes the current and expected competition in the market and relevant government regulations. This section receives considerable attention from creditors and investors, as the marketing of a product is critical to the long-term success of a business. This information helps the manager think about the business' activities related to sales. It shows investors and creditors how well the manager has thought about the business' sales potential and how the business will attract and sell to customers.

PTS: 1

DIF: Moderate

TOP: Planning in a new business (Marketing plan)

6. Doggie Donuts sells treats for pets for \$5 per box. The variable costs per box are \$3. Doggie Donuts' fixed costs total \$20 000.
- Calculate the contribution margin per box.
 - Calculate the break-even point in boxes.
 - Calculate the profit that Doggie would earn if sales total 30,000 units.

ANS:

- $\$2 = \$5 - \$3$
- $10\,000 \text{ units} = \$20\,000 / \$2 \text{ per unit}$
- $\$40\,000 = \$2 \text{ per unit} \times 30\,000 \text{ units} - \$20\,000$

PTS: 1

DIF: Easy

TOP: Using CVP analysis (Finding the break-even point)

7. Bill produces a miracle tool. His variable costs are \$20 per unit and his fixed costs are \$22 500. His break-even point is 30 000 units.
- What is Bill's selling price per unit?
 - What is Bill's profit at 50 000 units of sales?
 - What would Bill's profits at 50 000 units of sales be if Bill were able to reduce his variable costs by \$5 per unit?

ANS:

- $30\,000 \text{ units} = \$22\,500 / \text{contribution margin per unit}$
Contribution margin per unit = \$0.75
Selling price per unit – \$20 = \$0.75

Selling price per unit = \$20.75

- b. $(\$0.75 \times 50\,000) - \$22\,500 = \$15\,000$
- c. $[(\$20.75 - \$15.00) \times 50\,000] - \$22\,500 = \$265\,000$

PTS: 1 DIF: Difficult TOP: Using CVP analysis (Finding the break-even point)

8. If variable costs increase, and fixed costs and the selling price remain constant, what will happen to the break-even point? What will happen to profits?

ANS:

If variable costs rise, the contribution margin will fall. This will cause the break-even point to rise. The same level of profit will be attained with higher unit sales.

PTS: 1 DIF: Difficult TOP: Cost-volume-profit analysis

9. If fixed costs increase, variable costs and the selling price remain constant, what will happen to the break-even point? What will happen to profits?

ANS:

If fixed costs increase, it will take more unit sales to break even. More units will have to be sold to attain a profit.

PTS: 1 DIF: Moderate TOP: Cost-volume-profit analysis

10. Suppose that your business profits are less than the desired amount. What actions might you take to raise profits, if you do not want to change products?

ANS:

There are only a few actions that a business might take. The following are some of the possible alternatives. If the business can raise prices without hurting the sales volume in units, the contribution margin per unit would rise, resulting in higher profits. The business might consider investing in a new automated production facility, which would lower variable costs. If the increased contribution margin per unit more than offsets the increased fixed costs, profits will rise. If the business increases advertising, fixed costs will rise. If the advertising results in an increased sales volume, the increased total contribution margin may increase more than the increased fixed costs. This would result in an increase in profits.

PTS: 1 DIF: Moderate TOP: Cost-volume-profit analysis

PROBLEMS

1. Bob's variable costs are \$7 per unit. His selling price is \$9 per unit. His break-even point is 25 000 units.
- a. What is the amount of Bob's fixed costs?
 - b. What is Bob's profit when he sells 30 000 units?
 - c. What would Bob's profit be if he were able to raise prices to \$10 per unit and had sales of 40 000 units?

ANS:

- a. $25\,000 = \text{fixed costs} / (\$9 - \$7)$
Fixed costs = \$50 000
- b. $(\$2 \times 30\,000) - \$50\,000 = \$10\,000$

c. $(\$3 \times 40\,000) - \$50\,000 = \$70\,000$

PTS: 1 DIF: Difficult TOP: Using CVP analysis (Finding the break-even point)

2. Following from Problem 1 above, suppose that Bob is able to make some changes to his business by increasing his original selling price by \$0.50 per unit, decreasing his variable costs by \$0.50 per unit and increasing his fixed costs by \$10 000.

- a. What is Bob's new break-even point in units?
- b. What is Bob's profit when he sells 30 000 units?
- c. Assuming Bob believes he can sell 30 000 units, should Bob make the changes to his business?

ANS:

- a. $\text{BEP} = \text{Fixed costs} / \text{CM per unit} = \$60\,000 / (9.50 - 6.50)$
 $= \$60\,000 / \$3 = 20\,000 \text{ units}$
- b. $(\$3 \times 30\,000) - \$60\,000 = \$30\,000$
- c. Yes, he will make an additional \$20 000 of profit compared to his original situation if he sells 30 000 units.

PTS: 1 DIF: Difficult TOP: Using CVP analysis (Finding the break-even point)