1.

Exercise 18-9 Contribution margin L.O. A2

A pants maker is designing a new line of pants called the Redbird. The pants will sell for $325 per pair and cost $260.00 per pair in variable costs to make.

(1) *Compute the contribution margin per pair.* **(Round your answer to 2 decimal places. Omit the "$" sign in your response.)**

Contribution margin $ _____ per unit

(2) Compute the contribution margin ratio. **(Round your intermediate calculation to 2 decimal places. Omit the "%" sign in your response.)**

Contribution margin ratio _____ %

Worksheet

2.

Exercise 18-12 Income reporting and break-even analysis L.O. C2

Apollo Company manufactures a single product that sells for $208 per unit and whose total variable costs are $156 per unit. The company's annual fixed costs are $806,000.

(1) Prepare a contribution margin income statement for Apollo Company at the break-even point. **(Leave no cells blank - be certain to enter "0" wherever required. Input all amounts as positive values. Omit the "$" sign in your response.)**

APOLLO COMPANY
Contribution Margin Income Statement (at Break-Even)

(Click to select)	$
(Click to select)	
(Click to select)	
(Click to select)	
Net income	$

(2) Assume if the company's fixed costs increase by $140,000, what amount of sales (in dollars) is needed to break even? **(Omit the "$" sign in your response.)**

Break-even point $ _____

View Hint #1

Worksheet

3.

Exercise 18-13 Computing sales to achieve target income L.O. C2

Apollo Company manufactures a single product that sells for $180 per unit and whose total variable costs are $126 per unit. The company targets an annual after-tax income of $1,012,500. The company is subject to a 25% income tax rate. Assume that fixed costs remain at $842,400.

(1) Compute the unit sales to earn the target after-tax net income.

Unit sales _____ units

(2) Compute the dollar sales to earn the target after-tax net income. **(Omit the "$" sign in your response.)**

Dollar sales $ [ ]

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Wc

4.

Exercise 18-15 Predicting unit and dollar sales L.O. C2

Greenspan Company management predicts $560,000 of variable costs, $860,000 of fixed costs, and a pretax income of $328,000 in the next period. Management also predicts that the contribution margin per unit will be $66.

(1) Compute the total expected dollar sales for next period. (Omit the "$" sign in your response.)

Total expected dollar sales $ [ ]

(2) Compute the number of units expected to be sold next period.

Expected unit sales [ ] units

Worksheet

5.

Exercise 18-17 CVP analysis using composite units L.O. P4

Home Builders sells windows and doors in the ratio of 8:2 (windows:doors). The selling price of each window is $118 and of each door is $268. The variable cost of a window is $71.50 and of a door is $184.00. Fixed costs are $324,000.

(1) Determine the selling price per composite unit. **(Omit the "$" sign in your response.)**

Selling price per composite unit $ [ ]

(2) Determine the variable costs per composite unit **(Round your answer to 2 decimal places. Omit the "$" sign in your response.)**

Variable costs per composite unit $ [ ]

(3) Determine the break-even point in composite units. **(Round your intermediate calculation to 2 decimal places.)**

Break-even point in composite units [ ] composite units

(4) Determine the number of units of each product that will be sold at the break-even point. **(Round your intermediate calculation to 2 decimal places.)**

Unit sales of windows at break-even point [ ] units

Unit sales of doors at break-even point [ ] units

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View Hint #1

Worksheet

6.

Exercise 18-19 CVP analysis using composite units L.O. P4

Hubert Tax Service offers tax and consulting services to individuals and small businesses. Data for fees and costs of three types of tax returns follow. Hubert provides services in the ratio of 3:3:4 (easy, moderate, business). Fixed costs total $19,000 for the tax season.

Type of Return	Fee Charged	Variable Cost per Return
Easy (form 1040EZ)	$ 48	$ 29
Moderate (form 1040)	123	74
Business	273	99

(1) Determine the selling price per composite unit. **(Omit the "$" sign in your response.)**

Selling price per composite unit $ [ ]

(2) Determine the variable costs per composite unit. **(Omit the "$" sign in your response.)**

Variable costs per composite unit $ [ ]

(3) Determine the breakeven point in composite units. **(Round your answer to 2 decimal places.)**

Break-even point in composite units [ ] composite units

(4) Determine the number of units of each product that will be sold at the break-even point. **(Round your intermediate calculations to 2 decimal places and final answers to nearest units.)**

Unit sales of Easy at break-even point [ ] units
Unit sales of Moderate at break-even point [ ] units
Unit sales of Business at break-even point [ ] units

Worksheet

7.

Exercise 18-21 Operating leverage computed and applied L.O. A2

Company A is a manufacturer with current sales of $3,600,000 and a 60% contribution margin. Its fixed costs equal $1,600,000. Company B is a consulting firm with current service revenues of $3,600,000 and a 25% contribution margin. Its fixed costs equal $340,000.

1. Compute the degree of operating leverage (DOL) for each company. **(Round your answers to 1 decimal place.)**

Company A's DOL [ ]
Company B's DOL [ ]

2. Identify which company benefits more from a 20% increase in sales.

○ Company A
○ Company B

Worksheet

Problem 18-2A CVP analysis and charting L.O. P2, P3

[The following information applies to the questions displayed below.]

Edge Equipment Co. manufactures and markets a number of rope products. Management is considering the future of Product XT, a special rope for hang gliding, that has not been as profitable as planned. Since Product XT is manufactured and marketed independently of the other products, its total costs can be precisely measured. Next year's plans call for a $270 selling price per 100 yards of XT rope. Its fixed costs for the year are expected to be $205,200, up to a maximum capacity of 550,000 yards of rope. Forecasted variable costs are $216 per 100 yards of XT rope.

Section Break

Problem 18-2A CVP analysis and charting L.O. P2, P3

8.

Problem 18-2A Part 1

1(a) Estimate Product XT's break-even point in terms of sales units. (1 unit = 100 yards.)

Break-even in sales units _____ units

1(b) Estimate Product XT's break-even point in terms of sales dollars. **(Do not round your intermediate calculations. Round your final answers to the nearest whole number. Omit the "$" sign in your response).**

Break-even in sales dollars $ _____

Worksheet

Problem 18-2A Part 1

9.

Problem 18-2A Part 2

3. Prepare a contribution margin income statement showing sales, variable costs, and fixed costs for Product XT at the break-even point. **(Leave no cells blank - be certain to enter "0" wherever required. Input all amounts as positive values. Omit the "$" sign in your response.)**

EDGE EQUIPMENT CO.
Contribution Margin Income Statement (at Break-Even) — Product XT

(Click to select)	$
(Click to select)	
(Click to select)	
(Click to select)	
Net income	$

Worksheet

Problem 18-4A Break-even analysis; income targeting and forecasting L.O. C2, P2, A1
[The following information applies to the questions displayed below.]

Jetson Co. sold 20,300 units of its only product and incurred a $78,798 loss (ignoring taxes) for the current year as shown here. During a planning session for year 2012's activities, the production manager notes that variable costs can be reduced 50% by installing a machine that automates several operations. To obtain these savings, the company must increase its annual fixed costs by $153,000. The maximum output

capacity of the company is 40,000 units per year.

JETSON COMPANY
Contribution Margin Income Statement
For Year Ended December 31, 2011

Sales	$ 767,340
Variable costs	537,138
Contribution margin	230,202
Fixed costs	309,000
Net loss	$ (78,798)

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Section Break

Problem 18-4A Break-even analysis; income targeting and forecasting L.O. C2, P2, A1

10.

Problem 18-4A Part 1

Required:

1. Compute the break-even point in dollar sales for year 2011. **(Round your intermediate calculations to 2 decimal places and final answer to nearest dollar amount. Omit the "$" sign in your response.)**

Break-even point in dollar sales for year 2011 $ [ ]

Worksheet

Problem 18-4A Part 1

11.

Problem 18-4A Part 2

2. Compute the predicted break-even point in dollar sales for year 2012 assuming the machine is installed and there is no change in the unit sales price. **(Round your intermediate calculations to 2 decimal places and final answer to nearest dollar amount. Omit the "$" sign in your response.)**

Break-even point in dollar sales for year 2012 $ [ ]

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Worksheet

Problem 18-4A Part 2

12.

Problem 18-4A Part 3

3. Prepare a forecasted contribution margin income statement for 2012 that shows the expected results with the machine installed. Assume that the unit sales price and the number of units sold (20,300 units) will not change, and no income taxes will be due. **(Input all amounts as positive values. Omit the "$" sign in your response.)**

JETSON COMPANY