

Week 2 HW

Contribution Margin

Molly Company sells 37,000 units at \$27 per unit. Variable costs are \$21.06 per unit, and fixed costs are \$74,700.

Determine (a) the contribution margin ratio, (b) the unit contribution margin, and (c) operating income.

a. Contribution margin ratio (Enter as a whole number.) %

b. Unit contribution margin (Round to the nearest cent.) \$ per unit

c. Operating income \$

Feedback

Check My Work

- a. Unit contribution margin divided by unit sales price equals contribution margin ratio.
- b. Unit sales price minus unit variable costs equals unit contribution margin.
- c. Contribution margin minus fixed costs equals income from operations.

2 more Check My Work uses remaining.

Break-Even Point

Nicolas Inc. sells a product for \$49 per unit. The variable cost is \$30 per unit, while fixed costs are \$50,540.

Determine (a) the break-even point in sales units and (b) the break-even point if the selling price were increased to \$58 per unit.

a. Break-even point in sales units

_____ units

b. Break-even point if the selling price were increased to \$58 per unit

_____ units

3 more Check My Work uses remaining.

Week 2 HW

Target Profit

Forest Company sells a product for \$150 per unit. The variable cost is \$60 per unit, and fixed costs are \$603,000.

Determine (a) the break-even point in sales units and (b) the sales units required for the company to achieve a target profit of \$174,870.

a. Break-even point in sales units

_____ units

b. Break-even point in sales units required for the company to achieve a target profit of \$174,870

_____ units

3 more Check My Work uses remaining.

Week 3 HW

Margin of Safety

The Spector Company has sales of \$790,000, and the break-even point in sales dollars is \$505,600.

Determine the Spector company's margin of safety as a percent of current sales.

90

3 more Check My Work uses remaining.

Week 3 HW

Operating Leverage

Tucker Co. reports the following data:

Sales	\$879,400
Variable costs	<u>(598,000)</u>
Contribution margin	\$281,400
Fixed costs	<u>(205,300)</u>
Operating income	<u><u>\$76,100</u></u>

Determine Tucker Co.'s operating leverage. **Round your answer to one decimal place.**

3 more Check My Work uses remaining.

Week 3 HW

High-Low Method for a Service Company

Continental Railroad decided to use the high-low method and operating data from the past six months to estimate the fixed and variable components of transportation costs. The activity base used by Continental Railroad is a measure of railroad operating activity, termed "gross-ton miles," which is the total number of tons multiplied by the miles moved.

Transportation Costs Gross-Ton Miles

January	\$796,700	354,000
February	888,300	395,000
March	627,800	256,000
April	851,700	383,000
May	714,300	308,000
June	915,800	416,000

Determine the variable cost per gross-ton mile and the total fixed cost.

Variable cost (Round to two decimal places.) \$ _____

Per gross-ton mile

Total fixed cost \$ _____

3 more Check My Work uses remaining.

Week 2 HW

Contribution Margin Ratio

a. Young Company budgets sales of \$1,250,000, fixed costs of \$45,000, and variable costs of \$200,000. What is the contribution margin ratio for Young Company?

_____ %

b. If the contribution margin ratio for Martinez Company is 65%, sales were \$418,000, and fixed costs were \$184,760, what was the operating income?

\$ _____

3 more Check My Work uses remaining.

Break-Even Sales

Currently, the unit selling price of a product is \$400, the unit variable cost is \$330, and the total fixed costs are \$1,008,000. A proposal is being evaluated to increase the unit selling price to \$450.

- a. Compute the current break-even sales (units).

units

- b. Compute the anticipated break-even sales (units), assuming that the unit selling price is increased and all costs remain constant.

units

3 more Check My Work uses remaining.

Week 8 HW

Margin of Safety

a. If Canace Company, with a break-even point at \$410,400 of sales, has actual sales of \$720,000, what is the margin of safety expressed (1) in dollars and (2) as a percentage of sales? Round the percentage to the nearest whole number.

1. \$ _____

2. _____ %

b. If the margin of safety for Canace Company was 20%, fixed costs were \$1,070,400, and variable costs were 80% of sales, what was the amount of actual sales (dollars)?

(Hint: Determine the break-even in sales dollars first.)

\$ _____

3 more Check My Work uses remaining.

Week 3 HW

Analyze Musicland Theme Park's cost-volume-profit relationships

Musicland Theme Park has an average daily admission price of \$60 per guest. The following financial data are available for analysis:

Daily operating fixed costs	\$750,000
Variable daily operating cost per guest	24
Average daily concession revenue per guest	30
Average daily variable cost of concession items per guest	16

Additional operating data indicate that the park averages 24,000 daily guests during the weekdays and 40,000 average daily guests on Saturdays and Sundays.

a. Determine the break-even number of guests per day at the theme park.

_____ guests per day

b. How much profit does Musicland earn on an average weekday?

\$ _____

c. How much profit does Musicland earn on an average weekend day?

\$ _____

d. Determine the revised break-even if the daily fixed costs increased to \$1,000,000.

_____ guests per day

e. Would the theme park still remain profitable for an average weekday under the scenario in (d)?

The average daily admissions are _____

for the average weekday. Thus, the park still operates above

break-even and is therefore profitable with the increased fixed costs. The daily profit would be \$ _____.

3 more Check My Work uses remaining.