Problem #1 SHOW YOUR WORK

A company has a goal of earning $100,000 in after-tax income. The company must pay $28,000 in income tax if it achieves the goal. The contribution margin ratio is 30%. What dollar amount of sales must be achieved to reach the goal if fixed costs are $64,000?

Problem #2

Thomas Company has total fixed costs of $360,000 and variable costs of $14 per unit. If the unit sales price is reduced from $24 to $20 and advertising is increased by $10,000, sales will increase from 40,000 to 65,000 units. Should Thomas reduce it's per unit sales price and pay for the additional advertising? (Support your answer with calculations.) A yes or no answer will not be an acceptable answer without supporting evidence.

Problem # 3

A retail store has three departments, A, B, and C, each of which has four full-time employees. The store does general advertising that benefits all departments. Advertising expense totaled $90,000 for the current year, and departmental sales were:   
  
    
  
How much advertising expense should be allocated to each department?

Problem #4

This year Calypso Company sold 60,000 units of its only product for $20 per unit. Manufacturing and selling the product required $97,500 of fixed manufacturing costs and $157,500 of fixed selling and administrative costs. Its per unit variable costs follows:

Material……………………………………………………..$8.00

Direct labor (paid on the basis of completed units)…………..5.00

Variable overhead costs……………………………………. 1.60

Variable selling and administrative costs……………………0.40

Next year the company will use new material, which will reduce material costs by 50% and direct labor costs by 60% and will not affect product quality or marketability. Management is considering an increase in the unit sales price to reduce the number of units sold because the factory’s output is nearing its annual output capacity of 65,000 units. Two plans are being considered. Under plan 1 the company will keep the price at the current level and sell the same volume as last year. This plan will increase income because of the reduced costs from using the new material. Under plan 2 the company will increase price by 25%. This plan will decrease unit sales volume by 15%. Under both plan 1 and 2 the total fixed costs and the variable costs per unit for overhead and for selling and administrative costs will remain the same.

1. Compute the break-even point in dollar sales for both plan 1 and plan 2
2. Prepare a forecasted contribution margin income statement with two columns showing the expected results of plan 1 and plan 2. The statement should report sales, total variables costs, contribution margin, total fixed costs, income before taxes, income taxes (30% rate), and net income.