Week 5 Test Part 2

#1. Elm, Inc. had the following income statement for last period:

Sales	$50,000
Cost of Sales (manufacturing)	24,000
Selling and General Administrative	6,000
Net Income	$20,000

If costs of sales was 75% variable and 25% fixed, and Selling and General Expense was 60% variable and 40% fixed, prepare a contribution format income statement and calculate its contribution margin percentage.

#2. Sammy Company has a variable cost percentage of 40% on a product that sells for $50 per unit. Fixed costs are $40,000. Sammy wants to know how many units must be sold to:

a) Break even
b) Earn a profit of $28,000

Ignore income taxes.

#3. Heaven Company had the following functional income statement for the month of May, 2014:

HEAVEN COMPANY Functional Income Statement For the Month Ending May 31, 2014		
Sales (30,000 units)		$600,000
Cost of goods sold:		
Direct materials	$60,000	
Direct labor	45,000	
Variable manufacturing overhead	37,500	
Fixed factory overhead	50,000	192,500
Gross profit		$407,500
Selling and administrative expenses:		
Variable	$ 7,500	
Fixed	20,000	27,500
Net income		$ 380,000

Calculate Heaven's break-even sales in units.

#4. The Top Cat Corporation has the following current data:

Selling price per unit	$40
Variable costs per unit	$15
Fixed costs	$260,000
Units sold	25,000

Calculate Top Cat Corporation's current operating leverage.

#5. The Top Cat Corporation has the following data for 2014:

Selling price per unit	$25
Variable costs per unit	$12
Fixed costs	$60,000
Units sold	40,000

Calculate Top Cat's operating leverage at the end of 2014, assuming that 2014 sales decrease to 30,000 units.

#6. Portland Manufacturing had the following data for the past three months.

	January	February	March
Sales in units	6,000	7,500	9,000
Operating expenses	$272,000	$296,000	$320,000

Using the high-low method, estimate Portland's total fixed costs, contribution margin ratio and break-even point in sales dollars for April. Portland expects to sell 10,000 units for $50 per unit.

#7. Assume the Southeast Furniture Company sells two kinds of picnic tables, pine and redwood. At a 2:1 unit sales mix in which Southeast sells two pine tables for every redwood table, the following revenue and cost information is available.

	Pine Table	Redwood Table
Unit selling price	$400	$1,200
Unit variable costs	$250	$ 550
Unit contribution margin	$150	$ 650

Fixed costs per month: $18,000

Assuming a 2:1 sales mix, calculate Southeast Furniture's current monthly average unit contribution margin, break-even sales volume, and number of units of Pine and Redwood tables at break-even point.

#8. Ontario Outdoors is a manufacturer of outdoor items. The company is considering the possibility of offering a new sleeping bag that would sell for $150 each. Cost to manufacture these sleeping bags includes $40 in materials and $35 in direct labor for each sleeping bag. Variable marketing and selling costs would be $15 each. In order to manufacture these sleeping bags, the company would need to incur $120,000 in fixed costs for new equipment.

Required:

a. Compute the break-even point of the sleeping bag in units sold.
b. What would be the total revenue at the break-even point?
c. How many units would Ontario need to sell to earn a profit of $21,000?
d. If fixed costs in fact are $150,000 rather than $120,000, how many units would need to be sold in order to earn $21,000?