E18-21 *(L. OBJ. 4)* **Computing margin of safety [15 min]**

Ronnie's Repair Shop has a monthly target operating income of $17,000. Variable costs are 80% of sales, and monthly fixed costs are $12,000.

Requirements

1. Compute the monthly margin of safety in dollars if the shop achieves its income goal.

2. Express Ronnie's margin of safety as a percentage of target sales.

E18-22 *(L. OBJ. 5)* **Calculating breakeven point for two product lines [15–20 min]**

Scotty's Scooters plans to sell a standard scooter for $40 and a chrome scooter for $50. Scotty's purchases the standard scooter for $25 and the chrome scooter for $30. Scotty expects to sell two standard scooters for every three chrome scooters. His monthly fixed costs are $18,900.

Requirements

1. How many of each type of scooter must Scotty's Scooters sell each month to break even?

2. To earn $14,400?

■ Problem (Group A)

P18-23A *(L .OBJ. 1, 2, 3)* **Calculating cost-volume profit elements [45–60 min]**

The budgets of four companies yield the following information:

	Company			
	North	South	East	West
Sales revenue	$ 710,000	$ (4)	$ 600,000	$ (10)
Variable costs	(1)	150,000	288,000	160,160
Fixed costs	(2)	121,000	139,000	(11)
Operating income (loss)	$ 13,800	$ (5)	$ (7)	$ 42,840
Units sold	190,000	10,000	(8)	(12)
Contribution margin per unit	$ 1.42	$ (6)	$ 97.50	$ 14.72
Contribution margin ratio	(3)	0.20	(9)	0.23

Requirements

1. Fill in the blanks for each missing value.

2. Which company has the lowest breakeven point in sales dollars? What causes the low breakeven point?

P18-24A *(L. OBJ. 2, 3)* **Break even sales; sales to earn a target operating income; contribution margin income statement [30–45 min]**

British Productions performs London shows. The average show sells 1,200 tickets at $50 per ticket. There are 120 shows a year. The average show has a cast of 70, each earning an average of $300 per show. The cast is paid after each show. The other variable cost is a program-printing cost of $7 per guest. Annual fixed costs total $459,000.