Problem 5-12 (45 minutes)

1.	Cost of goods sold	Variable
	Advertising expense	Fixed
	Shipping expense	Mixed
	Salaries and commissions	Mixed
	Insurance expense	Fixed
	Depreciation expense	Fixed

2. Analysis of the mixed expenses:

			Salaries and
		Shipping	Commissions
	Units	Expense	Expense
High level of activity	5,000	A\$38,000	A\$90,000
Low level of activity	<u>4,000</u>	<u>34,000</u>	78,000
Change	<u>1,000</u>	<u>A\$ 4,000</u>	<u>A\$12,000</u>

Variable cost element:

Variable rate = $\frac{\text{Change in cost}}{\text{Change in activity}}$ Shipping expense: $\frac{\text{A}\$4,000}{1,000 \text{ units}}$ = A\$4 per unit Salaries and commissions expense: $\frac{\text{A}\$12,000}{1,000 \text{ units}}$ = A\$12 per unit Fixed cost element:

		Salaries and
	Shipping	Commissions
	Expense	Expense
Cost at high level of activity	A\$38,000	A\$90,000
Less variable cost element:		
5,000 units $ imes$ A\$4 per unit	20,000	
5,000 units \times A\$12 per unit.		60,000
Fixed cost element	<u>A\$18,000</u>	<u>A\$30,000</u>

Problem 5-12 (continued)

© The McGraw-Hill Companies, Inc., 2010. All rights reserved.

The cost formulas are:						
Shipping expense:						
A\$18,000 per month plus A\$4 per unit						
or						
Y = A\$18,000 + A\$4X						
Salaries and commissions expense:						
A\$30,000 per month plus A\$12 per unit						
Y = A\$30,000 + A\$12X						
2						
J. Morricov & Brown 1td						
Morrisey & Brown, Ltd.						
Income Statement						
For the Month Ended September 30						
Sales (5,000 units × A\$100 per unit)	A\$500,000					
Variable expenses:						
Cost of goods sold						
$(5,000 \text{ units} \times A\$60 \text{ per unit})$ A\$300,000						
Shipping expense						
$(5,000 \text{ units} \times A$4 \text{ per unit})$						
Salaries and commissions expense						
$(5,000 \text{ units} \times A$12 \text{ per unit}) \dots 60,000$	380,000					
Contribution margin	120,000					
Fixed expenses:						
Advertising expense 21,000						
Shipping expense						
Salaries and commissions expense						
Insurance expense 6,000						
Depreciation expense <u>15,000</u>	90,000					
Net operating income	<u>A\$ 30,000</u>					

© The McGraw-Hill Companies, Inc., 2010. All rights reserved.