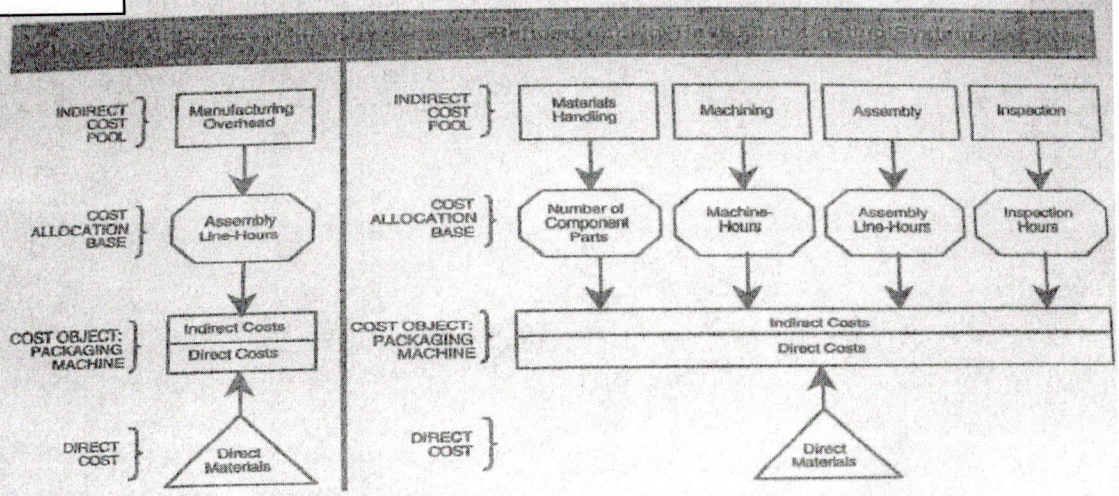
CW1

SOLUTION EXHIBIT 5-28
Job-Costing Systems for Calgary Company



2. Direct manufacturing costs:

Direct materials		$3,000
Indirect manufacturing costs:		
Materials handling, $8 × 50	$ 400	
Machining, $68 × 12	816	
Assembly, $75 × 15	1,125	
Inspection, $104 × 4	416	2,757
Total manufacturing costs		$5,757

Total manufacturing costs = $5,757 × 50 = $287,850

3. A direct cost is a cost that is related to the particular cost object and that can be traced to it in an economically feasible way. Calgary may differ from its competitor in several ways.
   (a) Calgary uses a more automated production approach with the result that manufacturing labour provides support to the machines.
   (b) Calgary uses a less sophisticated information tracking system for manufacturing labour than its competitors.

Manufacturing labour costs are included in the individual indirect manufacturing (overhead) cost pools.

4. The refined activity-based costing system can provide information to:
   (a) Product designers—The indirect cost rates in each of the four indirect cost areas can guide decisions about how much (say) machine-hours to use versus assembly-line-hours when designing packaging machines.
   (b) Manufacturing personnel—Decisions about productivity and cost manage-

CW2 (40-50 min.) **Activity-based job costing, unit cost comparisons.**

1.

	Job Order 410		Job Order 411	
Direct manufacturing costs:				
Direct materials	$9,700		$59,900	
Direct manufacturing labour, $30 × 25; 375	750	$10,450	11,250	$ 71,150
Indirect manufacturing costs, $115 × 25; 375		2,875		43,125
Total manufacturing costs		$13,325		$114,275
Number of units		÷ 10		÷ 200
Unit manufacturing cost per job		$ 1,332.50		$ 571.375

2.

	Job Order 410		Job Order 411	
Direct manufacturing costs:				
Direct materials	$9,700		$59,900	
Direct manufacturing labour, $30 × 25; 375	750	$10,450	11,250	$71,150
Indirect manufacturing costs:				
Materials handling, $0.40 × 500; 2,000	200		800	
Lathe work, $0.20 × 20,000; 60,000	4,000		12,000	
Milling, $20.00 × 150; 1,050	3,000		21,000	
Grinding, $0.80 × 500; 2,000	400		1,600	
Testing, $15.00 × 10; 200	150	7,750	3,000	38,400
Total manufacturing costs		$18,200		$109,550
Number of units per job		÷ 10		÷ 200
Unit manufacturing cost per job		$ 1,820		$ 547.75

3.

	Job Order 410	Job Order 411
Number of units in job	10	200
Unit cost per job with prior costing system	$1,332.50	$571.375
Unit cost per job with activity-based costing	1,820.00	547.75

Job order 410 has an increase in reported cost of 36.6% [($1,820 – $1,332.50) ÷ $1,332.50] while Job order 411 has a decrease in reported cost of 4.1% [($547.75 – $571.375) ÷ $571.375].

A common finding when activity-based costing is implemented is that low-volume products have increases in their reported cost while high-volume products have decreases in their reported cost. This result is also found in requirements 1 and 2 of this problem.

The product costs figures computed in requirements 1 and 2 differ because:

(a) the job orders differ in the way they use each of five activity areas, and

(b) the activity areas differ in their indirect cost allocation bases (specifically, each area does not use the direct labour-hours indirect cost allocation base).