

淡江大學 97 學年度碩士班招生考試試題

119-1

系別：會計學系

科目：成本與管理會計

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一、Multiple Choice: 20%

Please use the following format to prepare your answer

| | | | | | |
|--------------|---|---|---|---|---|
| Question No. | 1 | 2 | 3 | 4 | 5 |
| Answer | | | | | |

1. Products S5 and CP8 each are assigned \$50.00 in indirect costs by a traditional costing system. An activity analysis revealed that although production requirements are identical, S5 requires 45 minutes less setup time than CP8. According to an ABC system, S5 uses a disproportionately:

- a. smaller amount of unit-level costs
- b. larger amount of unit-level costs
- c. smaller amount of batch-level costs
- d. larger amount of batch-level costs

2. The breakeven point in CVP analysis is defined as:

- a. when fixed costs equal total revenues
- b. fixed costs divided by the contribution margin per unit
- c. revenues less variable costs equal operating income
- d. when the contribution margin percentage equals total revenues divided by variable costs

3. Patel Corporation manufactured 1,000 coolers during October. The following variable overhead data pertain to October:

| | |
|--|------------------|
| Budgeted variable overhead cost per unit | \$ 9.00 |
| Actual variable manufacturing overhead cost | \$8,400 |
| Flexible-budget amount for variable manufacturing overhead | \$9,000 |
| Variable manufacturing overhead efficiency variance | \$180unfavorable |

What is the variable overhead spending variance?

- a. \$420 unfavorable
- b. \$600 favorable
- c. \$600 unfavorable
- d. \$780 favorable

4. One possible means of determining the difference between operating incomes for absorption costing and variable costing is by:

- a. subtracting sales of the previous period from sales of this period
- b. subtracting fixed manufacturing overhead in beginning inventory from fixed manufacturing overhead in ending inventory
- c. multiplying the number of units produced by the budgeted fixed manufacturing cost rate
- d. adding fixed manufacturing costs to the production-volume variance

5. Qualitative factors:

- a. generally are easily measured in quantitative terms
- b. are generally irrelevant for decision making
- c. may include either financial or nonfinancial information
- d. include customer satisfaction

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119-2

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二、16%

Consider a company that uses standard costing and allocates variable and fixed manufacturing overhead based on machine-hours. For each independent scenario given, indicate whether each of the variances will be favorable "F" or unfavorable "U" or, in case of insufficient information, indicate cannot be determined "X". Please use the following format to prepare your answer

| Scenario | Variable Overhead Spending Variance | Variable Overhead Efficiency Variance | Fixed Overhead Spending Variance | Fixed Overhead Production-Volume Variance |
|---|-------------------------------------|---------------------------------------|----------------------------------|---|
| Example: Actual machine hours are 10% greater than flexible-budget machine hours | X | U | X | X |
| Production output is 10% more than budgeted; actual machine-hours are 5% less than budgeted | | | | |
| Relative to the flexible budget, actual machine-hours are 10% greater and actual variable overhead costs are 8% greater | | | | |

三、24%

Consider the following data for the Satellite Assembly Division of Aerospatiale:

The Satellite Assembly Division uses the weighted-average method of process costing.

| | Physical Units (Satellites) | Direct Materials | Conversion Costs |
|-----------------------------------|--------------------------------|---------------------|---------------------|
| Beginning work in process(May 1)* | 8 | \$4,933,600 | \$ 910,400 |
| Started in May 2007 | 50 | | |
| Completed during May 2007 | 46 | | |
| Ending work in process(May 31)** | 12 | | |
| Total costs added during May 2007 | | \$32,200,000 | \$13,920,000 |

*Degree of completion: direct materials, 90%; conversion costs, 40%

** Degree of completion: direct materials, 60%; conversion costs, 30%

Required:

1. Compute equivalent units for direct materials and conversion costs.
2. Calculate cost per equivalent unit for direct materials and conversion costs, summarize total costs to account for, and assign total costs to units completed and transferred out and to units in ending work in process.

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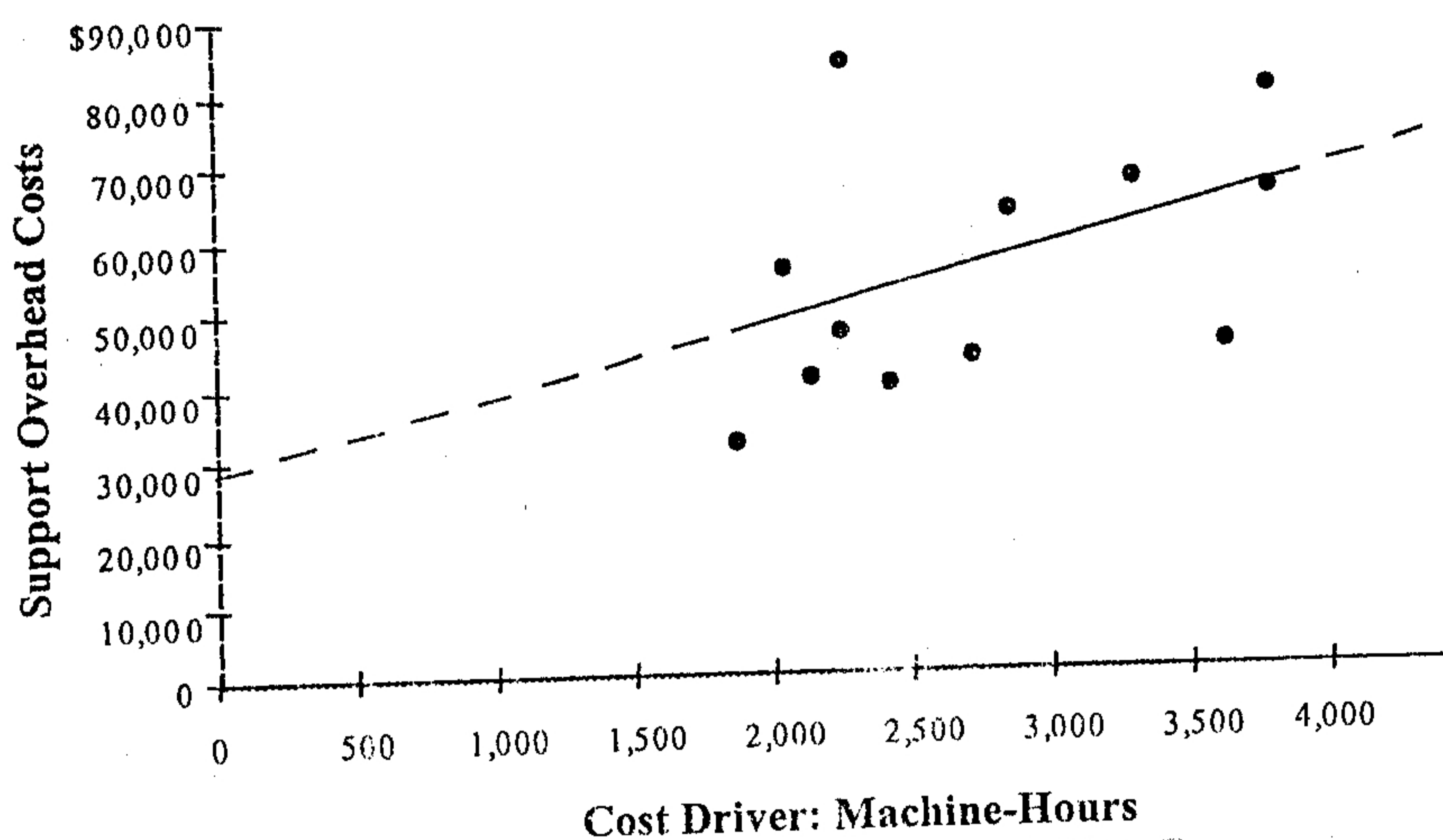
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四、20%

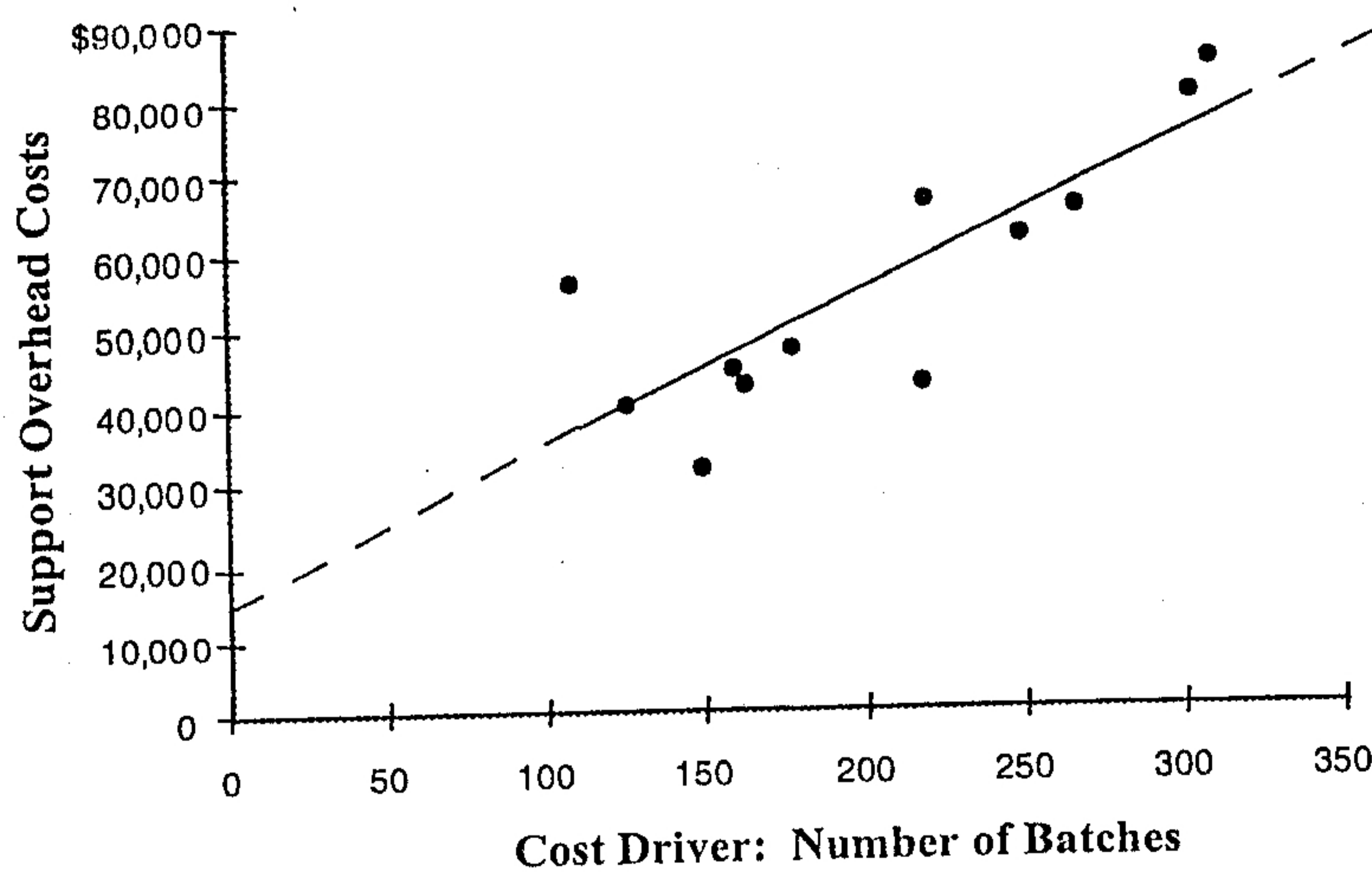
Larry Chu, the plant controller at Rohan Plastics, wants to identify cost drivers for support overhead costs. Indirect support consists of skilled staff responsible for the efficient functioning of all aspects (setup, production, maintenance, and quality control) of the plastic injection molding facility. In talking to the support staff, Chu has the impression that the staff spends a sizable portion of their time ensuring that the equipment is set up correctly and checking that the first units of production in each batch are of good quality.

Chu has collected the data and plot the following regression lines for the past 12 months:

Regression Line of Machine-Hours on Support Overhead Costs for Rohan Plastics



Regression Line of Number of Batches on Support Overhead Costs for Rohan Plastics



Chu estimates the following two regression equations:

$$Y = \$28,089 + (\$10.23 \times \text{Machine-hours})$$

$$Y = \$16,031 + (\$197.30 \times \text{Number of batches})$$

Where Y is the monthly support overhead costs.

Required:

- Which cost driver for support overhead costs would you choose? Give two criteria to support your answer.
- Chu anticipates 2,600 machine-hours and 300 batches for next month. Using the cost driver you choose in requirement 1, what amount of support overhead costs should Chu budget?
- Describe one effect of choosing the wrong cost driver and cost function.

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五、20%

The California Instrument Company (CIC) consists of the Semiconductor Division and the Process-Control Division, each of which operates as an independent profit center. The Semiconductor Division employs craftsmen who produce two different electronic components: the new high-performance Super-chip and an older product called Okay-chip. These two products have the following cost characteristics:

| | Super-chip | Okay-chip |
|---|------------|-----------|
| Direct Material | \$ 2 | \$1 |
| Direct manufacturing labor, 2 hours x \$14; 0.5 hour x \$14 | 28 | 7 |

Annual overhead in the Semiconductor Division totals \$400,000, all fixed. Due to the high skill level necessary for the craftsmen, the Semiconductor Division's capacity is set at 50,000 hours per year.

One customer orders a maximum of 15,000 Super-chip per year, at a price of \$60 per chip. If CIC cannot meet this entire demand, the customer curtails(削減) its own production. The rest of the Semiconductor Division's capacity is devoted to the Okay-chip, for which there is unlimited demand at \$12 per chip.

The Process-Control Division produces only one product, a process-control unit, with the following cost structure:

- Direct materials (circuit board): \$60
- Direct manufacturing labor (5 hours x \$10): \$50

Fixed overhead costs of the Process-Control Division are \$80,000 per year. The current market price for the control unit is \$132 per unit.

A joint research project has just revealed that a single Super-chip could be substituted for the circuit board currently used to make the process-control unit. Using Super-chip would require an extra one hour of labor per control unit for a new total of six hours per control unit.

Required:

1. Calculate the contribution margin per hour of selling Super-Chip and Okay-chip. If no transfers of Super-chip are made to the Process-Control Division, how many Supper-chips and Okay-chips should the Semiconductor Division sell? Show your computations.
2. The Process-Control Division expects to sell 5,000 control units this year. From the viewpoint of California Instruments as a whole, should 5,000 Super-chips be transferred to the Process-Control Division to replace circuit boards? Show your computations.
3. If demand for the control unit is certain to be 5,000 units but its *price is uncertain*, what should the transfer price of Super-chip be to ensure that the division managers' actions maximize operating income for CIC as a whole? (All other data are unchanged.)