**AC556**

**Week 1 Problem**

**ABC Costing**

**NOTE:** It is expected that this problem will be completed using an Excel spreadsheet using formulas. Please see the Excel Tutorial that is available under the course home tab.

The new president of the Wernecke Company was stumped. Why had profits gone down? He had directed the sales department to push the product with the highest contribution margin, and the sales department had come through with flying colors. The percent of flams sold had increased from 25% of units sold to 37.5% of units sold. So what happened?

|  |  |  |
| --- | --- | --- |
|  | Flims | Flams |
| Sales Price per Unit | $150 | $500 |
| Direct Materials per Unit | $75 | $200 |
| Direct Labor Cost per Hour | $25 | $25 |
| Direct Labor Hours per Unit | 1 hour per unit | 5 hours per unit |
| Number of Units Produced | 25,000 | 15,000 |

The variable overhead for the coming year is estimated to be $3,000,000.

**Required:**

1. Calculate the Wernecke Company’s estimated direct labor hours to produce flims and flams.
2. Calculate the predetermined variable overhead rate that will be used in the coming year using a traditional costing system based upon direct labor hours.
3. Using a traditional costing system based upon direct labor hours, compute the unit product costs for flims and flams as well as contribution margin per unit.
4. It has been suggested to the president to consider the use of an ABC costing system to allocate manufacturing overhead. Engineering studies have revealed the following information about estimated manufacturing activities for the coming year.

|  |  |  |
| --- | --- | --- |
| Activity Cost Pool | Estimated Overhead Cost | Expected Activity Level |
| Setups | $850,000 | 200 setups |
| Scrap | $350,000 | 500 units |
| Testing | $200,000 | 5,000 tests |
| Machine related | $1,600,000 | 100,000 Mhrs |
| Total | $3,000,000 |  |

Calculate the separate predetermined overhead rates for each of the activities listed above.

1. The following data is available about the activity levels needed to produce the projected 25,000 units of Flims:

|  |  |
| --- | --- |
| Activity Cost Pool | Estimated Activity Level for Flims |
| Setups | 50 setups |
| Scrap | 200 units |
| Testing | 2,000 tests |
| Machine related | 12,500 Mhrs. |

Calculate the expected variable overhead to be applied to Flims.

1. The following data is available about the activity levels needed to produce the projected 15,000 units of Flams:

|  |  |
| --- | --- |
| Activity Cost Pool | Estimated Activity Level for Gadgets |
| Setups | 150 setups |
| Scrap | 300 units |
| Testing | 3,000 tests |
| Machine related | 87,500 Mhrs. |

Calculate the expected variable overhead to be applied to Flams.

1. Calculate the total overhead (total for company) that is expected to be applied to Flims and Flams.
2. Calculate the projected unit costs and unit contribution margins for Flims and Flams using ABC costing.
3. What conclusions can you drawn about the use of traditional costing vs. ABC costing for the Wernecke Company? What recommendations do you have for the president?