Problem #1

Assume that Sony and Microsoft both plan to introduce a new hand-held video game. Sony plans to use a heavily automated production process to produce its product while Microsoft plans to use a labor-intensive production process. The following revenue and cost relationships are provided:

|  |  |  |
| --- | --- | --- |
|   | Sony Game | Microsoft Game |
| Selling price per unit | $100 | $100 |
| Variable costs per unit |  |  |
|  Direct materials | $18.00 | $18.00 |
|  Direct labor | 5.00 | 20.00 |
|  Overhead | 5.00 | 20.00 |
|  Selling and administrative | 2.00 | 2.00 |
| Annual fixed costs |  |  |
| Overhead | $400,000 | $160,000 |
|  Selling and administrative | 90,000 | 90,000 |

Required:

 a) Compute the contribution margin per unit for each company.

 b) Prepare a contribution income statement for each company

 assuming each company sells 8,000 units.

 c) Compute each firm's net income if the number of units sold

 increases by 10%

 d) Which firm will have more stable profits when sales change? Why?

Problem #2

Morris Company makes one product, and it expects to incur a total of $400,000 in indirect (overhead) costs during 2007.

Production of the product for the year is expected to be:

|  |  |
| --- | --- |
|  | Quarter |
|  | 1 | 2 | 3 | 4 |
| Estimated production in units | 40,000 | 15,000 | 27,000 | 38,000 |

Required:

 a) Calculate a predetermined overhead rate based on the number of

 units of product expected to be made during 2007.

1. Assuming that direct materials and direct labor costs are $8 and $6,

 respectively, determine the total cost per unit using the overhead rate

 you calculated in part a).