**Question #2**

The following per unit information is based on expected production and sales of 1,200 units:

|  |  |
| --- | --- |
| Selling price | $25 |
| Var COGS | $8 |
| Fixed COGS | $6 |
| Gross Profit | $11 |
|  |  |
| Var S&A | $2 |
| Fixed S&A | $4 |
| **Operating Income** | **$5** |

The firm’s tax rate is 40%.

a) How many units need to be sold to break-even?

b) How many units need to be sold to earn operating income of $7,500?

c) How many units need to be sold to earn net income of $6,000?

**Question #3**

The following is budgeted information for the Sophia Corporation:

|  |  |  |
| --- | --- | --- |
|  | **Product A** | **Product B** |
| Monthly production & sales | 10,000 | 5,000 |
| Projected selling price | $20 | $23 |
|  |  |  |
| **Production Cost Information** |  |  |
| Parts (per unit) | $5.50 | $6.40 |
| Direct Labor (per unit) | $3.50 | $4.20 |
| VMOH (per unit) | $1.40 | $1.40 |

Additional information:

* Fixed manufacturing overhead costs are budgeted to be $91,000.
* Selling & administrative costs are budgeted to be $40,000.

Assuming the budgeted sales mix remains intact, how many **units of each product** does Sophia need to sell in order to break even?

**Question #8**

Consider the following information, prepared based on monthly production and sales of 20,000 units:

|  |  |
| --- | --- |
| **Category** | **Cost per Unit** |
| Direct materials | $1.00 |
| Direct manufacturing labor | $1.20 |
| Variable manufacturing overhead | $0.80 |
| Fixed manufacturing overhead | $0.50 |
| Variable marketing | $1.50 |
| Fixed marketing | $0.90 |

In addition, the firm currently sells the product for $6 per unit.

**Consider each of these scenarios independent of each other.**

a) The company is currently producing 15,000 units per month. A potential customer has contacted the firm and offered to purchase 5,000 units this month only at a price of $4.25 per unit. There would be no variable marketing costs incurred on the contract. Should the company accept the special order? Why or why not? **Be specific.**

b) Assume the same facts as in part a, except that the company is producing 20,000 units per month. Should the company accept the special order? Why or why not? **Be specific.**

c) The company is considering selling 1,000 units that are in danger of becoming obsolete. What is the minimum price it would be willing to take for the 1,000 units?

d) Assume the company is producing and selling 20,000 units per month. It is considering an arrangement where an outside manufacturer would produce and ship the product directly to customers. Under this arrangement, variable marketing costs would decrease 20% per unit and fixed manufacturing costs would decrease 50%. Fixed marketing costs would not change. What is the maximum amount per unit the company would be willing to pay to the outside manufacturer?