

Air Production Company produces pneumatic lifts used to assist emergency rescue teams used to assist victims of auto and other accidents. The costs of manufacturing and marketing the pneumatic lifts at the company's normal volume of 3000 per month are shown in Exhibit 1.

Exhibit 1

| | | |
|--------------------------------|-------|---------|
| Unit manufacturing costs: | | |
| Variable materials | \$495 | |
| Variable labor | \$795 | |
| Variable Overhead | \$475 | |
| Fixed Overhead | \$640 | |
| Total unit manufacturing costs | | \$2,405 |
| | | |
| Unit marketing costs: | | |
| Variable | \$235 | |
| Fixed | \$745 | |
| Total unit marketing costs | | \$980 |
| | | |
| Total unit costs | | \$3,385 |

Questions:

The following refers to the data given in exhibit 1. Treat each problem separately. Unless otherwise stated, assume a selling price of \$4250 per lift. Ignore income taxes. Assume no beginning or ending inventories.

1. What is the break even volume:
 - a. In units?
 - b. In sales dollars?
2. Company research indicates that monthly sales have a potential of 3700 units, within manufacturing capacity limit of 4200, if the price were decreased from \$4250 to \$3750 per unit. Based on the cost data in exhibit 1, what would be the impact of the price decrease on sales, costs, and operating income per month. Which option do you recommend?
3. A government agency on April 1 offers a contract to Air Production to supply 500 units to supply federal emergency medical teams across the region. The delivery must be made by May 1. Because this is a rush order along with several other rush orders, Air Production plans to produce and sell 4000 units in April. If the government order is accepted, 500 units normally available to regular customers will be lost. The government contract will reimburse Air Production for the government's share of April production costs, plus pay an additional fixed fee (profit) of \$250,000. There are no variable marketing costs incurred on the government contract.

What impact would accepting the government contract special order have on April operating income for Air Products?