PROBLEM 7–22 Make or Buy Decision [LO 7–3]

Bronson Company manufactures a variety of ballpoint pens. The company has just received an offer from an outside supplier to provide the ink cartridge for the company's Zippo pen line, at a price of $0.48 per dozen cartridges. The company is interested in this offer because its own production of cartridges is at capacity.

Bronson Company estimates that if the supplier's offer were accepted, the direct labor and variable manufacturing overhead costs of the Zippo pen line would be reduced by 10% and the direct materials cost would be reduced by 20%.

Under present operations, Bronson Company manufactures all of its own pens from start to finish. The Zippo pens are sold through wholesalers at $4 per box. Each box contains one dozen pens. Fixed manufacturing overhead costs charged to the Zippo pen line total $50,000 each year. (The same equipment and facilities are used to produce several pen lines.) The present cost of producing one dozen Zippo pens (one box) is given below:

Direct materials	$1.50
Direct labor	1.00
Manufacturing overhead	0.80*
Total cost	$3.30

*Includes both variable and fixed manufacturing overhead, based on production of 100,000 boxes of pens each year.

Required:

1. Should Bronson Company accept the outside supplier's offer? Show computations.
2. What is the maximum price that Bronson Company should be willing to pay the outside supplier per dozen cartridges? Explain.
3. Due to the bankruptcy of a competitor, Bronson Company expects to sell 150,000 boxes of Zippo pens next year. As previously stated, the company presently has enough capacity to produce the cartridges for only 100,000 boxes of Zippo pens annually. By incurring $30,000 in added fixed cost each year, the company could expand its production of cartridges to satisfy the anticipated demand for Zippo pens. The variable cost per unit to produce the additional cartridges would be the same as at present. Under these circumstances, how many boxes of cartridges should be purchased from the outside supplier and how many should be made by Bronson? Show computations to support your answer.
4. What qualitative factors should Bronson Company consider in determining whether it should make or buy the ink cartridges?

(CMA, adapted)