Macready Company is considering introducing a new compact disc player model at a price of $ 105 per unit. Macready's controller has compiled the following incremental cost information based on an estimate of 120,000 units of sales annually for the new product

Direct materials cost
$ 3,600,000
Direct labor cost
$ 2,400,000
Variable manufacturing support
$ 1,200,000
Sales commission
10% of sales
Fixed cost
$ 2,000,000

The average inventory levels for the new product are estimated as follows:
Raw materials
-2 months of production

Work in progress (100% complete for materials and 50% complete for labor and variable manufacturing support)
-1 month of production

Finished goods
-2 months of production

Annual inventory carrying costs not included in the variable manufacturing support listed earlier are estimated to be 12% of inventory value. In addition, the sales manager expects the introduction of the new model to result in a reduction in sales of the existing model from 300,000 to 240,000 units. The contribution margin for the old product is $ 20 per unit.

(a) Determine the total impact on Macready's profit from the introduction of the new product. Compute the relevant costs (revenues) for the new compact disc players.
(b) Should Macready's introduce the new product? Explain.
(c) Determine the breakeven point (in units) for the new product. Assume that sales of the old product decrease by one unit for every two-unit increase in the sale of the new product.