**Problem 2**

Following a strategy of product differentiation, Sting Corporation makes a high-end computer monitor, CM7. Sting Corporation presents the following data for the years 2012 and 2013:

**2012 2013**

Units of CM 7 produced and sold 5,000 5,500

Selling price $400 $440

Direct materials (pounds) 15,000 15,375

Direct materials costs per pound $40 $44

Manufacturing capacity for CM7 (units) 10,000 10,000

Conversion costs $1,000,000 $1,100,000

Conversion costs per unit of capacity $100 $110

Selling and customer-service capacity (customers) 60 58

Total selling and customer-service costs $360,000 $362,500

Selling and customer-service capacity cost per customer $6,000 $6,250

Sting Corporation produces no defective units but it wants to reduce direct materials usage per unit of CM7 in 2013. Manufacturing conversion costs in each year depend on production capacity defined in terms of CM7 units that can be produced. Selling and customer-service costs depend on the number of customers that the customer and service functions are designed to support. Sting Corporation has 100 customers in 2012 and 115 customers in 2013. The industry market size for high-end computer monitors increased 5% from 2012 to 2013.

**Required:**

a. What is operating income for 2012?

b. What is operating income in 2013?