Dana Corporation, based in Toledo, Ohio, is a global manufacturer of highly engineered products that serve industrial, vehicle, construction, commercial, aerospace, and semiconductor markets.

Dana’s 2012 sales were $10.3 billion. It frequently subcontracts work to other manufacturers, depending on whether Dana’s facilities are fully occupied. Suppose Dana is about to make some final decisions regarding the use of its manufacturing facilities for the coming year.

The following are the costs of making part EC113, a key component of an emissions control system:

**Total Cost for 50,000 Units Cost per Unit**

Direct materials $ 400,000 $ 8

Direct labor 250,000 5

Variable factory overhead 150,000 3

Fixed factory overhead 300,000 6

Total manufacturing costs $1,100,000 $22

Another manufacturer has offered to sell the same part to Dana for $20 each. The fixed overhead consists of depreciation, property taxes, insurance, and supervisory salaries. All the fixed overhead would continue if Dana bought the component except that the cost of $150,000 pertaining to some supervisory and custodial personnel could be avoided.

1.Assume that the capacity now used to make parts will become idle if the parts are purchased.

Should Dana buy or make the parts? Show computations.

2.Assume that the capacity now used to make parts will either (a) be rented to a nearby manufacturer for $75,000 for the year or (b) be used to make oil filters that will yield a profit contribution of $100,000. Should Dana buy or make part EC113? Show your computations.