**Exercise 1**

A company is considering buying in a new product from a supplier at £350 per unit.

To produce ‘in house’ the fixed cost per year would be £130,000, and the total variable costs would be £80 per part.

Using the graphical method and the mathematical method, what would be the break-even point in terms of volume and cost for the make or buy decision ?

**Mathematical Method:**

Q = Fc / (R-v)

Q = 130,000 / (350-80)

Q = 482 products

At 482 products, the cost of outsourcing matches the cost of making ‘in house’. This is an outsourcing strategic decision point

**Graphical Method:**

**Approx:**

**482 parts**

**£185,000**

**Exercise 2**

ABC Limited is a manufacturing company. It has been asked by a customer to manufacture a new product. However, ABC are unsure whether they could produce the product in the time or to the quality that the customer needs in such a short period of time. The company has decided to outsource the product in the early stages until they can assure themselves that they can produce the product correctly.

1. List the non-cost related reasons why the company would outsource the product
2. List the non-cost related reasons why the company would produce the product ‘in house’
3. List the cost related reasons why the company would outsource the product.
4. List the cost related reasons why the company would produce the product ‘in house’.

Outsource Part (non-cost)

* Lack of internal expertise
* Suppliers' research and specialized know-how exceeds that of the buyer
* Small-volume requirements
* Limited production facilities or insufficient capacity
* Desire to maintain a multiple-source policy
* Indirect managerial control considerations
* Procurement and inventory considerations
* Brand preference
* Item not essential to the firm's strategy

Make In House (non-cost)

* Productive use of excess plant capacity to help absorb fixed overhead (using existing idle capacity)
* Need to exert direct control over production and/or quality
* Better quality control
* Design secrecy is required to protect proprietary technology
* Unreliable suppliers
* No competent suppliers available
* Desire to maintain a stable workforce (in periods of declining sales)
* Quantity too small to interest a supplier
* Control of lead time, transportation, and warehousing costs
* Greater assurance of continual supply
* Provision of a second source
* Political, social or environmental reasons

 ‘Make In House’ Cost related Issues

* Incremental inventory-carrying costs
* Direct labour costs
* Incremental factory overhead costs
* Delivered purchased material costs
* Incremental managerial costs
* Any follow-on costs stemming from quality and related problems
* Incremental purchasing costs
* Incremental capital costs

 ‘Outsourcing’ Cost Related Issues

* Purchase price of the part
* Transportation costs
* Receiving and inspection costs
* Incremental purchasing costs
* Any follow-on costs related to quality or service