

# Break-even analysis: simple and complex

## Simple break-even analysis

### Exercise 1 16 marks

Maggie Jestic has just completed the plans for her first year's trading. Her business makes one product, a solidifying solution that enables batches of jellies to set immediately. A number of manufacturers have expressed an interest in her product and she has undertaken research into the costs of producing the solidifying solution. The product's expected costs and revenue are as follows:

Sales volume: Capacity = 2,000 units

Selling price: £40 per unit

Cost information:

Rent	£5,000 per annum
Depreciation	£7,000 per annum
Wages	£8 per unit
Salaries	£9,000 per annum
Raw materials	£15 per unit
Administration	£3,000 per annum
Power	£2 per unit

- Calculate the break-even output. (3 marks)
- Construct a break-even chart showing: sales revenue, fixed costs, variable costs and total costs. (9 marks)
- Mark the break-even point and show the break-even output. (2 marks)
- Calculate and show the margin of safety, assuming that the company works at full capacity. (2 marks)

### Exercise 2 9 marks

Analyse the strengths and weaknesses of using break-even analysis for a business such as Maggie Jestic's.

