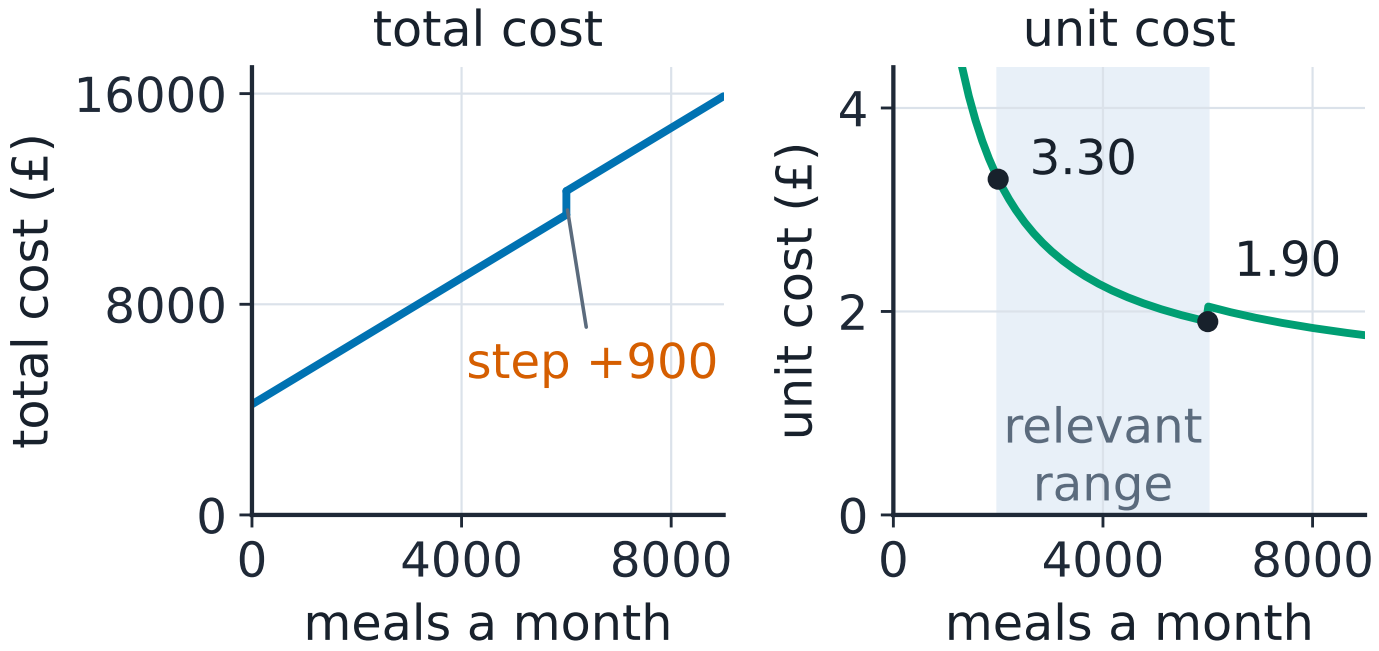
Exercise walk-through

6.6
Relevant-cost decisions

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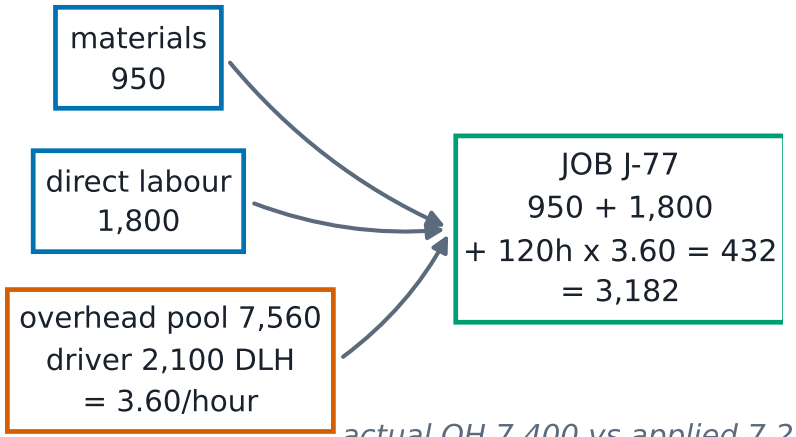
Cost behaviour: date your assumptions



TC = 1.20q + 4,200 with a step at 6,000; unit cost falls with volume.

Costing systems: choose your question

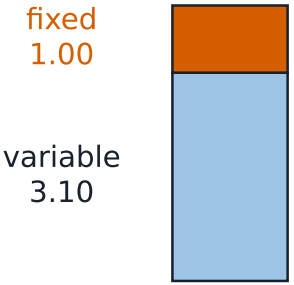
Job J-77: trace, then allocate



actual OH 7,400 vs applied 7,236: under-applied 164

Absorption vs variable

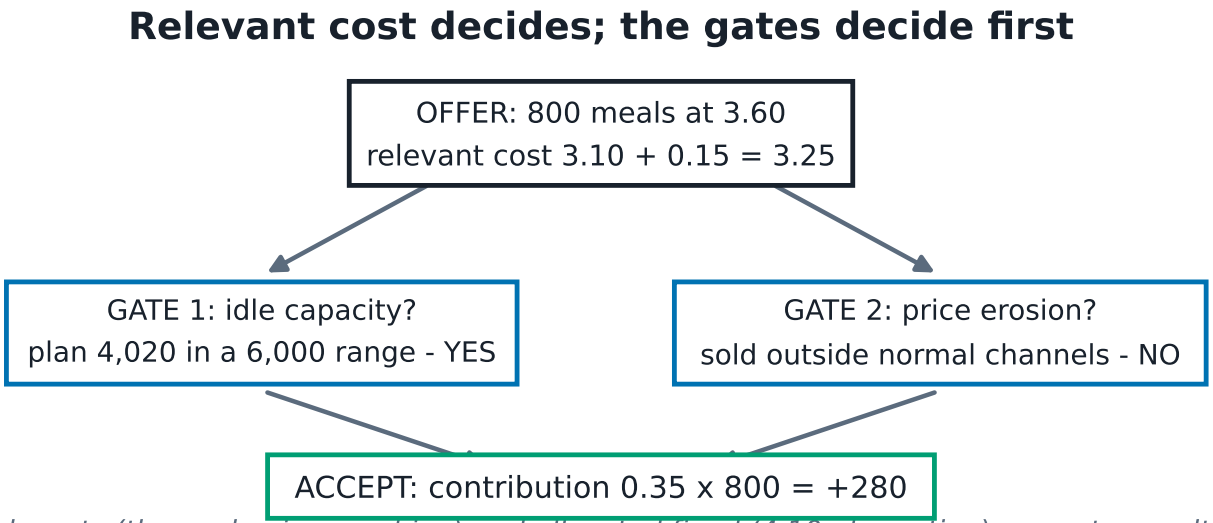
absorption unit 4.10



sell 3,000 of 4,200 made:
absorption 7,200 vs variable 6,000:
1,200 x 1.00 parked

Job J-77 costs 3,182; absorption parks 1,200 of fixed cost in stock.

Relevant costs: only changes get a vote



Pass both gates, then **relevant cost** 3.25 against 3.60 earns +280.

Exercises 2.1·2.2

2.1 Compute the order's relevant cost per cup and its total contribution, and state the two gates. [4]

2.2 The regular supplier of cups offers to take over production at £2.60 a cup. Avoidable internal cost is £1.90 plus £200 a month of rent actually freed. Decide, with numbers. [4]

Exercises 2.1·2.2

2.1 Compute the order's relevant cost per cup and its total contribution, and state the two gates. [4]

2.1

- Relevant cost $= 1.90 + 0.10 = £2.00$ a cup.
- Contribution $= (2.35 - 2.00) \times 900 = £315 \rightarrow$ accept.
- Gate 1: idle capacity – 900 fits inside the 1,800-cup slack ✓.
- Gate 2: the £2.35 price must not leak to regular £4.00 customers.

2.2 The regular supplier of cups offers to take over production at £2.60 a cup. Avoidable internal cost is £1.90 plus £200 a month of rent actually freed. Decide, with numbers. [4]

2.2

- Avoidable internal $= 1.90 + 200/5{,}200 = 1.90 + 0.038 = £1.94$ a cup.
- Bid £2.60 $>$ £1.94 $\rightarrow$ keep making.
- The remaining ~£0.62 of "cost" per cup is fixed or allocated – no vote.

Exercises 2.3·2.4

2.3 Mango pulp is short: 300 kg left. Smoothie A uses 0.10 kg with CM £1.60; smoothie B uses 0.15 kg with CM £2.10. Which mix, and what is the maximum total contribution? [4]

2.4 The £12,000 blender bought two years ago is half-depreciated. For each of – its book value; its £1,500 trade-in today; the £400 future maintenance either way – say whether it is relevant to replacing it, and why. [3]

Exercises 2.3·2.4

2.3 Mango pulp is short: 300 kg left. Smoothie A uses 0.10 kg with CM £1.60; smoothie B uses 0.15 kg with CM £2.10. Which mix, and what is the maximum total contribution? [4]

2.3

- A: $1.60/0.10 = £16.00$ per kg; B: $2.10/0.15 = £14.00$ per kg.
- Rank by CM per scarce kg $\rightarrow$ fill with A first.
- A uses $5{,}200 \times 0.10 = 520$ kg... pulp is capped at 300: cap A at $300/0.10 = 3{,}000$ smoothies worth £4,800.
- Maximum contribution $= 3{,}000 \times 1.60 = £4{,}800$ (mix A-only under the 300 kg cap).

2.4 The £12,000 blender bought two years ago is half-depreciated. For each of – its book value; its £1,500 trade-in today; the £400 future maintenance either way – say whether it is relevant to replacing it, and why. [3]

2.4

- Book value £6,000: sunk – constant across alternatives.
- Trade-in £1,500: relevant – a future cash flow that differs.
- Maintenance £400: not relevant – occurs either way.

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