6.1 Cost behaviour

Name: _____ Class: _____ Date: _____ **Total: 16 marks**

KEY WORDS variable cost • fixed cost • relevant range

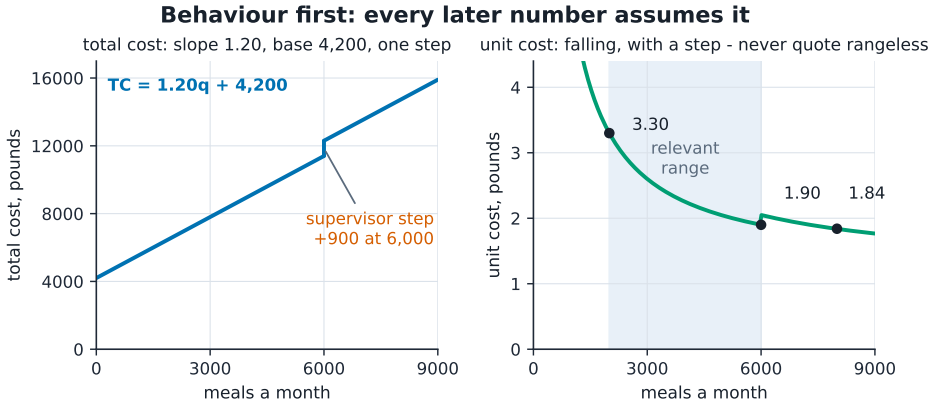
Objective

Classify costs by behaviour and traceability; estimate cost functions with high-low honestly; respect the relevant range and its steps.

1 Key knowledge and worked examples

■ Behaviour, range, steps

$TC = vq + F$ within the **relevant range** ; unit cost $= v + F/q$; marginal cost is v. Step costs break the function at thresholds – date every behaviour claim.



Never quote a unit cost without its range

■ Worked example. Nimbus Kitchen

v = 1.20, F = 4,200 (to 6,000 meals) then 5,100: at 2,000 £6,600 ✓; at 6,400 £12,780 ✓. High-low on (2,400, 7,080)–(5,200, 10,440) recovers 1.20 and 4,200 ✓; across the step it launders 0.15 into v.

2 Practice

A bakery workshop: rent £3,600 a month; flour £0.50 a loaf; a head baker £2,200 a month up to 10,000 loaves, then a second baker adds £2,000.

2.1 Write total cost at 8,000 loaves and at 12,000 loaves. [3]

2.2 Compute unit cost at 8,000 and 12,000, and the marginal cost of one more loaf at 12,000. [3]

2.3 High-low on (4,000, £6,800) and (9,000, £9,300): recover v and F, and state the assumption you checked. [3]

2.4 The manager high-lows across the step using 12,000 loaves. What does the estimate wrongly say, and by how much per loaf? [3]

2.5 For each – rent; flour; the second baker; the oven's electricity meter (a standing charge plus per-use) – name the behaviour. [4]

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