Solutions

Marking: **K** knowledge, **App** application to the case, **An** analysis (a developed chain of reasoning), **Ev** evaluation (a justified judgement); calculations earn **M1** for the method and **A1** for the answer.

Each answer shows the steps, then the **result**.

2.1

- tailor **job**; bakery **batch**; bottling line **flow** (all three B2; two B1)

2.2

- $600 \div 5$
- $=$ **120** units per worker per week

2.3

- benefit: little **stock**, so less cash is tied up and less storage space is needed (1 + 1 for the effect)
- drawback: if a delivery is **late**, production stops (1)

3.1

B

3.2

(a)

- using **machines** to do work previously done by people, with little human control

(b)

- before $400 \div 20 = 20$; after $450 \div 18 = 25$
- productivity rose by **5** jumpers per worker per week

(c) two ways, each outlined (K + App each):

- **training** knitters in faster methods
- better **motivation**: bonuses or teamwork
- improving the **layout** of the workshop to cut moving time
- buying more modern machines

(d) two benefits, each explained (K, App, An each):

- **JIT** wool deliveries: less stock of wool in many colours, so less cash tied up
- **kaizen**: knitters suggest small improvements, so waste and costs fall
- less **waste** of wool and time, so cost per jumper falls and profit rises
- less storage space needed

(e) for flow: (An)

- the popular design sells in volume; **lower cost per jumper**; automated machines keep quality even

against: (An)

- customers like **choice** of colours and sizes, which batches give; costly machines; if the design goes out of fashion, the line has nothing to make; job losses lower morale

decision: (Ev) for example, keep batch production for most products and test flow for the one popular design only if demand is steady, because variety is Cosy Knits' strength and fashion demand can change quickly.

Level 3 (5–6): a justified decision for this business, weighing both sides. Level 2 (3–4): points explained and applied. Level 1 (1–2): points identified.