

EXERCISES AND EXACT SOLUTIONS

Start With the Decision

Independent practice, facilitated discussion, and assessment reference

Production Unit	PU-B07-C01
Notebook	V7_0_N01
Version	0.2
Assessment boundary	Learning evidence—not operational authorization

Instructions

Complete all four exercises before consulting the solutions. State assumptions explicitly. Where evidence is insufficient, write an abstention or escalation response rather than inventing precision.

Exercise 1

Why must the decision horizon be defined before model selection?

- Required output: explain how forecast lead time, data latency, and the intervention window constrain model choice.

Exercise 2

Who owns the final decision?

- Required output: identify the named lawful institutional authority and state what authority must never be delegated to the model.

Exercise 3

Give two reasons to abstain.

- Required output: name two evidence conditions that require abstention and state the appropriate review or escalation response.

Exercise 4

Why is accuracy alone insufficient?

- Required output: identify at least three decision-relevant dimensions that accuracy does not establish.

Exact solutions and scoring guide

Solution 1

It determines whether data latency and forecast lead time permit intervention.

Solution 2

The named lawful institutional authority, never the model.

Solution 3

Examples: inadequate data quality; uncertain probability band; failed linkage; distribution shift.

Solution 4

Accuracy does not encode consequences, equity, calibration, actionability, authority, or operational capacity.

Scoring rubric

Criterion	Strong evidence	Revision required
Decision framing	Owner, action, horizon, authority named	Model output substituted for decision
Evidence	Concepts, grain, provenance, limits explicit	Data treated as self-explanatory
Uncertainty	Abstention/escalation used appropriately	False precision or hidden limitations
Governance	Human authority and safeguards retained	Authority silently delegated