

Solutions

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

2.1

- authority shifted from inherited texts to reproducible observation and mathematical demonstration

2.2

- experiment produces the conditions rather than waiting for them, so a factor can be isolated and varied deliberately

2.3

(a)

- who decides what is true about nature

(b)

- the answer determines authority over all future findings, not only this one

3.1 B

- regularity and prediction are what mathematics supplies

3.2 B

- method changed; belief largely did not

3.3

(a)

- reproducibility by independent investigators

(b)

- the older standard rested on the authority of a text or its interpreter, which no amount of independent observation could override