Revision practice

International Baccalaureate · IB Diploma · Theory of Knowledge

Original open practice with worked answers. These cases support the current introductory lessons; they are not reserved assessments or official IB tasks.

1 Evidence and purpose

Question 1

A weather app correctly predicts rain in your town on four days. A student says it is reliable everywhere. Explain one useful part of the evidence and one limit.

Worked answer

The four correct predictions provide local evidence for those days. They do not establish performance in other places, seasons or weather conditions. A wider check should compare predictions with recorded outcomes in named settings.

2 An alternative cause

Question 1

Library borrowing increased after new posters appeared. The library also added popular new books. What comparison would help test the poster claim?

Worked answer

Compare similar periods or groups with and without the posters while accounting for the new books. Record borrowing consistently. A simple before-and-after count cannot separate the two changes.

3 A particular object

Question 1

You choose the actual warning sign placed beside a closed footpath after a storm. Explain how its context can support a discussion about trusting information.

Worked answer

Its issuer, date and location explain why a walker might trust it for a safety decision. The walker can check who inspected the path and when. A sign from another place would not provide the same evidence for this path.

4 A challenge changes the conclusion

Question 1

A student claims that every specialist should be trusted on every topic. A qualified botanist gives advice about a railway bridge. Explain a useful qualification to the

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claim.

Worked answer

Relevant expertise matters to the question. Botanical training alone does not establish expertise in structural engineering. For the bridge decision, seek appropriate engineering evidence and examine the inspection method and uncertainty. The conclusion should explain when expertise supplies a reason for trust.

5 Surviving records

■ Question 1

A school archive contains an approved timetable for a concert but no record of the performance. A writer concludes that every listed piece was played. Explain what the timetable establishes and what further evidence would help.

Worked answer

The timetable records the planned programme. It does not establish which pieces were actually performed. A dated recording, performance report or independent witness account may help, with its own context checked. Missing records do not prove that a listed piece was omitted.

6 Define the population

■ Question 1

An optional lunchtime poll finds that 45 of 60 respondents want a new music club. The school has 300 pupils. Write a conclusion supported by the poll and explain a limit.

Worked answer

75% of the recorded respondents supported the proposal under the wording used. That proportion is not established for all 300 pupils because participation was voluntary and some groups may not have seen the poll. Check recruitment, access and the target population before generalising.

7 Instrument and variation

■ Question 1

An instrument reads 2 degrees higher than a checked reference in a stable setting. Repeated readings vary by only 0.1 degrees. A student says the small variation proves accuracy. Explain the error in that reasoning.

Worked answer

Small variation shows that these readings are consistent, not that they are accurate. The reference comparison suggests a systematic offset under the checked conditions. Investigate the calibration and record the applicable correction or uncertainty. More

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repetitions alone do not remove the offset.

8 What covers every case?

■ Question 1

A student finds that the sum of the first n positive even numbers equals n(n+1) for n=1, 2 and 3. Give a general justification and state the domain.

Worked answer

For n=1 the sum is 2, equal to 1×2. Assume the sum through 2n is n(n+1). Adding 2(n+1) gives n(n+1)+2(n+1)=(n+1)(n+2), the next case. The base case and transition establish the claim for every positive integer n; successful examples alone do not.

9 Effect and intention

■ Question 1

A poster uses a large empty area around one small tree. One reader calls it hopeful; another calls it fragile. Explain how their readings could be evaluated and what would be needed for a claim about the designer's intention.

Worked answer

Connect each reading to visible features: the tree may suggest growth, while its scale and isolation may suggest vulnerability. Compare how well those features support each reading rather than counting opinions. A dated design statement or other relevant contextual evidence could support an intention claim. Neither personal response alone establishes the maker's intention.

10 Keep the qualifier

■ Question 1

A report says that some participants may improve under the tested conditions. A summary says that participants improve. Identify two lost limits and explain a consequence.

Worked answer

The summary removes the population qualifier some and the uncertainty expressed by may; it also omits the tested conditions. Readers could infer a broader and more certain result than the report supports. Compare the exact wording with the source and restore the limits that affect the inference.

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11 Popularity and accuracy

Question 1

A recommendation page ranks a claim first because many readers clicked it. The page gives no source data. Explain what the click count measures and which check would address the claim's accuracy.

Worked answer

Clicks measure recorded attention under the page's conditions. They do not directly measure the truth of the claim. Trace the underlying source, identify the evidence and method, and seek a relevant independent check. A popular claim may be true or false; the ranking alone cannot decide.

12 What would change your view?

Question 1

A pupil judges a study room unsuitable after visiting during one noisy repair. Another visits after the repair and finds it quiet. Explain how the first judgement could be revised without dismissing either observation.

Worked answer

Both observations may be accurate at their stated times. A claim about normal use needs observations after the temporary repair and across relevant periods. Narrow the original judgement to the observed repair visit and distinguish a factual sound-level question from preferences about study conditions. Specify which further evidence would support a broader judgement.

13 Match the question and method

Question 1

A botanist records leaf growth in a school garden. A researcher asks why pupils chose that garden's location ten years earlier. Explain how the evidence needed differs.

Worked answer

The growth record can support a claim about the measured plants under the recorded conditions. Reasons for the earlier location choice need relevant dated planning records or accounts, with their origin and purpose checked. Neither source automatically answers the other question. Compare methods by what each question requires, rather than ranking entire fields from this example.

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