

# Cambridge International AS & A Level

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**THINKING SKILLS****9694/41**

Paper 4 Applied Reasoning

**May/June 2025****MARK SCHEME**Maximum Mark: 50

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**Published**

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

Mark schemes should be read in conjunction with the question paper and the Principal Examiner Report for Teachers.

Cambridge International will not enter into discussions about these mark schemes.

Cambridge International is publishing the mark schemes for the May/June 2025 series for most Cambridge IGCSE, Cambridge International A and AS Level components, and some Cambridge O Level components.

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This document consists of **13** printed pages.

**PUBLISHED****Generic Marking Principles**

These general marking principles must be applied by all examiners when marking candidate answers. They should be applied alongside the specific content of the mark scheme or generic level descriptions for a question. Each question paper and mark scheme will also comply with these marking principles.

**GENERIC MARKING PRINCIPLE 1:**

Marks must be awarded in line with:

- the specific content of the mark scheme or the generic level descriptors for the question
- the specific skills defined in the mark scheme or in the generic level descriptors for the question
- the standard of response required by a candidate as exemplified by the standardisation scripts.

**GENERIC MARKING PRINCIPLE 2:**

Marks awarded are always **whole marks** (not half marks, or other fractions).

**GENERIC MARKING PRINCIPLE 3:**

Marks must be awarded **positively**:

- marks are awarded for correct/valid answers, as defined in the mark scheme. However, credit is given for valid answers which go beyond the scope of the syllabus and mark scheme, referring to your Team Leader as appropriate
- marks are awarded when candidates clearly demonstrate what they know and can do
- marks are not deducted for errors
- marks are not deducted for omissions
- answers should only be judged on the quality of spelling, punctuation and grammar when these features are specifically assessed by the question as indicated by the mark scheme. The meaning, however, should be unambiguous.

**GENERIC MARKING PRINCIPLE 4:**

Rules must be applied consistently, e.g. in situations where candidates have not followed instructions or in the application of generic level descriptors.

**PUBLISHED****GENERIC MARKING PRINCIPLE 5:**

Marks should be awarded using the full range of marks defined in the mark scheme for the question (however; the use of the full mark range may be limited according to the quality of the candidate responses seen).

**GENERIC MARKING PRINCIPLE 6:**

Marks awarded are based solely on the requirements as defined in the mark scheme. Marks should not be awarded with grade thresholds or grade descriptors in mind.



**Annotations guidance for centres**

Examiners use a system of annotations as a shorthand for communicating their marking decisions to one another. Examiners are trained during the standardisation process on how and when to use annotations. The purpose of annotations is to inform the standardisation and monitoring processes and guide the supervising examiners when they are checking the work of examiners within their team. The meaning of annotations and how they are used is specific to each component and is understood by all examiners who mark the component.

We publish annotations in our mark schemes to help centres understand the annotations they may see on copies of scripts. Note that there may not be a direct correlation between the number of annotations on a script and the mark awarded. Similarly, the use of an annotation may not be an indication of the quality of the response.

The annotations listed below were available to examiners marking this component in this series.

**Annotations**

Annotation	Meaning
	Correct response. Use when a mark has been achieved in <b>Q1, 2 and 3</b> .
	Incorrect (part of a) response
<b>NGE</b>	Not good enough. Use wherever such a judgment has been made.
<b>BOD</b>	Benefit of doubt
<b>S</b>	Strand of reasoning
<b>CON</b>	Main Conclusion
<b>I</b>	Intermediate Conclusion
<b>AE</b>	Additional argument element in <b>Q1</b> / Argument Element in <b>Q4</b>
<b>U</b>	Creditworthy material in the Use of Documents skill
<b>3</b>	Use stamps 1–5 alongside U to indicate which document has been referenced

Annotation	Meaning
<b>EVAL</b>	Evaluation of documents
<b>C</b>	Comparison of or inference from documents
<b>Q</b>	Creditworthy material in the Quality of Argument skill
<b>T</b>	Treatment of counter-position
<b>L2</b>	Level achieved. Add annotation at the end of <b>Question 4</b> in the order of S, U, Q from left to right.
<b>+</b>	Strong demonstration of a skill Higher mark within a level awarded
<b>-</b>	Minor demonstration of a skill Flaw or weakness Lower mark within a level awarded
<b>SEEN</b>	Examiner has seen that the page contains no creditworthy material Use to annotate blank pages
<b>Highlighter</b>	Use to draw attention to part of an answer

There must be at least one annotation on each page of the answer booklet.

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Question	Answer	Marks
1(a)	<b><i>State the main conclusion of the argument.</i></b>  (Therefore,) subjective sports should not be represented in the Olympic Games.	<b>1</b>
1(b)	<b><i>Identify two intermediate conclusions in paragraphs 4 to 5.</i></b>  <i>1 mark for each correctly identified IC [max 2]</i> <ul style="list-style-type: none"><li>• Victory in subjective events is often undeserved.</li><li>• (So,) subjective sports damage the reputation of the Olympics</li></ul>	<b>2</b>

Question	Answer	Marks
1(c)	<p><b>Analyse the structure of the reasoning in paragraph 3.</b></p> <p><i>Award 1 mark for each of the following [max 3]:</i></p> <p>R1 In order to be regarded as a sport, a competition must be considered to be fair  R2 If the winner is decided by judges, the result might not be fair  Ex a winning margin of 0.1 points out of 100 from a panel of five judges could easily have gone the other way  IC (Therefore,) the outcome of judged events must frequently be unfair  C (So,) subjective events are not sports  A1 A result that could easily have gone the other way is thereby unfair  A2 If a result can be unfair, it will frequently be unfair</p> <p><i>Award 1 mark for identifying two relationships between elements,  or 2 marks for identifying three relationships between elements, e.g.</i></p> <ul style="list-style-type: none"> <li>• R2 supports IC</li> <li>• IC/R1 supports C</li> <li>• IC and R1 support C jointly</li> <li>• Ex explains/illustrates R2</li> <li>• A1 is needed in order for Ex to illustrate R2</li> <li>• A2 is needed in order for R2 to support IC</li> </ul> <p><i>Reference to start and end of elements must be unambiguous</i></p> <p><i>Sample 5-mark answer</i></p> <p>‘If the winner... might not be fair’ is a reason [1] that supports an intermediate conclusion ‘the outcome of judged events must frequently be unfair’ [1]. This IC, in conjunction with the first sentence [1r], which is another reason [1], supports the conclusion of the paragraph [1r], which is the final sentence [1].</p>	5
1(d)	<p><b>Identify an unstated assumption in paragraph 6 upon which the reasoning relies.</b></p> <p><i>1 mark for any of the following</i></p> <ul style="list-style-type: none"> <li>• Subjective sports do not meet (any of) the criteria (of ‘Swifter. Higher. Stronger.’)</li> </ul>	1

Question	Answer	Marks
2	<p><b>Identify and explain four flaws and/or weaknesses in the reasoning in paragraphs 2 to 4.</b></p> <p>2 marks for a developed version of any of the following points 1 mark for a weak or incomplete version of any of the following points [max 8]</p> <p><i>Paragraph 2:</i></p> <ul style="list-style-type: none"> <li>• <i>Conflation</i> – of appealing to young people with being trendy</li> <li>• <i>Straw man</i> – there are likely to be reasons for the recent inclusion of sports that are nobler and harder to argue against than ‘trendiness’</li> <li>• <i>Reliance on questionable assumption</i> – flamboyance is the dominant criterion in subjective events (rather than athletic prowess)</li> </ul> <p><i>Paragraph 3:</i></p> <ul style="list-style-type: none"> <li>• <i>Reliance on stipulative definition</i> – of what can be regarded as a sport</li> <li>• <i>Reliance on questionable assumption</i> – that a result that could easily have gone the other way is thereby unfair</li> <li>• <i>Reliance on questionable assumption</i> – that if a result can be unfair, it will frequently be unfair</li> </ul> <p><i>Paragraph 4:</i></p> <ul style="list-style-type: none"> <li>• <i>Begging the question</i> – the paragraphs rests on denying that the judge’s decision is the correct criterion for deserving to win. (This could be expressed in terms of circular reasoning, stipulation, assumption, or equivocation.)</li> <li>• <i>Reliance on questionable claim</i> – the conclusion relies on the claim ‘It is ridiculous [that the judge’s decision is the right way to decide the winner]’</li> <li>• <i>Irrelevant appeal</i> – to popularity in the final sentence</li> <li>• <i>Contradiction</i> – the example of Plushenko, the more flamboyant competitor, not winning contradicts the point about flamboyance in paragraph 2</li> </ul>	8



Question	Answer	Marks
3(a)	<p><b><i>‘The results of all judged events in the Olympics are subject to a significant degree of nationality bias.’ (Document 4)</i></b></p> <p><b><i>Identify four weaknesses in the support given to this claim by the table in Document 4.</i></b></p> <p><i>1 mark each for any of the following points [max 4]</i></p> <ul style="list-style-type: none"> <li>• without reference to the total scores awarded we cannot judge the significance of the numbers given</li> <li>• not all the data have been given / it appears that only the positive values have been selected. So, ...</li> <li>• if there are some (not shown) negative values / the overall average is not significantly positive, then this would undermine the claim</li> <li>• as we don’t know the sample size, we do not know if the figures are <i>statistically</i> significant (if, for example, only one Japanese judge assigned a single score in one discipline)</li> <li>• the data is about figure skating but the claim refers to ‘all judged events’</li> <li>• even if the data are valid they would only support an accusation of bias in events where competitor and judge are of the same nationality</li> <li>• the data refers to one only season, so it is possible changes have been made since 2017 or that the season has been cherry-picked to support the author’s claim</li> <li>• (at least most of) the data do not come from Olympic competitions</li> </ul>	4
3(b)	<p><b><i>‘Subjective sports are not as popular as ‘first-past-the-post’ events at the Summer Olympics.’ (Document 5)</i></b></p> <p><b><i>Identify two weaknesses in the support given to this claim by the table in Document 5.</i></b></p> <p><i>1 mark each for any of the following points [max 2]</i></p> <ul style="list-style-type: none"> <li>• number of entries in the top 10 is an arbitrary metric upon which to make this claim</li> <li>• and is irrelevant if not given in the context of the proportion of judged events / judged events are distributed reasonably evenly in the list / there are plenty of non-judged events below the most popular few judged events</li> <li>• the individual disciplines hidden within the ranges of some sports, e.g. gymnastics, could increase representation in the top 10 if considered separately</li> <li>• respondents may not have interpreted ‘better’ in the same way</li> <li>• the claim is about popularity but the respondents answered which was ‘better’</li> <li>• the respondents were all from the US but the claim about sport popularity seems more general</li> </ul>	2

Question	Answer	Marks
4	<p><b><i>‘Subjective sports should be included in the Olympics.’</i></b></p> <p><b><i>Example high-scoring answers</i></b></p> <p><i>Argument to support (741 words)</i></p> <p>The fact that the presence of gymnastics at the 1896 Olympics is mentioned in both Doc1 and Doc 2 strengthens the claim that subjective sports have been a feature of the modern Olympic games since their inception. This fact, together with the later examples in Doc 3, also fatally damages the claim in Doc 1 that subjective sports are damaging the Olympic tradition (Doc 1 itself even manages to counter this claim within paragraph 2). Doc 3 uses its own definition of Olympic ideal and Doc 1 tries to do the same with Olympic tradition but both terms are open to interpretation and subjectivity. No-one would suggest that terms that can be interpreted subjectively damage the tradition of reasoned arguments and nor do sports that are judged subjectively damage the Olympic tradition.</p> <p>Although some might see that analogy as trivial, most of us would agree that the Olympics is a celebration of sport in general, which must include all sports. If we agree that, for example, gymnastics is a popular sport (and Doc 5 suggests that it is) and if the Olympics is a showcase for as many sports as possible then gymnastics ought to be included in the Olympics. There are those, like, perhaps, the author of Doc 1 who, somewhat stipulatively, might not consider gymnastics a sport (although I suspect there is an objective definition of sport that includes gymnastics and the other so-called subjective sports) but gymnastics will always beat shooting as the answer to the question ‘Which of these is more sport-like?’. So, by most definitions and near-universal public opinion, gymnastics is a sport. In any case, one can’t help but feel that the author of Doc 1 might want to encourage the removal of certain sports to make room for their beloved cricket which, Doc 2 tells us, must have been dropped from the Olympics at some time in the past.</p> <p>Doc 1 would like us to accept the assertion that judgement in sport in general and the Olympics in particular is necessarily a thing to be avoided. However, all sports have some sort of judgement. ‘Who pushed whom in the penalty box?’ is a question that can determine the outcome of a football match and is based on the judgement of the referee. This football example is applicable, to a varying extent, in all sports – more so in boxing, which Doc 3 suggests is less controversial than skateboarding. Doc 1’s attempt to dismiss this whole area as ‘temporary uncertainty’ is something of straw man. Every sport has its own rules and competitors agree to take part knowing that those are the rules they must operate under.</p>	27

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Question	Answer	Marks
4	<p>Accusations of bias also apply to other sports, perhaps more so because they are less overtly subjective. Football referees are often accused, occasionally rightly, of making judgments that favour one particular team. We all remember Fergietime in the English Premiership in the 1990s and 2000s when, if Manchester United were not winning, referees would often allow play to continue at the end of the match until they scored – if they were winning, the whistle would be blown much closer to 90 min. So, it would not only be <i>possible</i> to create a table such as that one in D4 about football referees but would actually be easy, if the season and referee selection was as limited as it appears to have been in Doc 4. If one is going to use the data in Doc 4 for any useful purpose, rather than jettisoning a range of sports from the Olympics, it should be simply to have a word with the Ukrainian judge.</p> <p>The rules governing sport inclusion in the Olympics seem to have been given some thought, as outlined in Doc 2. The people who drafted the rules and who then vote on proposals are likely to have some expertise in the area. Some might say that individual members might be biased in favour of keeping their old sport and, as subjective sports have been around for a while some of these members will be, e.g., gymnasts and want to retain gymnastics. However, the fact that new sports are often admitted is inconsistent with this position. It seems reasonable to accept their judgment as the author of Doc 3 does.</p> <p>The case for removing a range of popular sports, many of which have a long Olympic tradition, is weak. Therefore, subjective sports should be included in the Olympics.</p> <p><i>Argument to challenge (771 words)</i></p> <p>There are certain sports, those that rely entirely on the opinion of one or more humans to decide the outcome, that should not be included in the Olympics. The Olympic motto is ‘Swifter. Higher. Stronger.’, as stated in Doc 1. It does not say ‘more graceful’, ‘more fun to watch’ or ‘more able to sway the opinion of an independent judge’.</p> <p>Some, like the author of Doc 3, argue that all sports require a certain amount of judgement. However, there is a real difference between sports where the ‘goal’ can be measured objectively and judgement is required to ensure competitors stay within the rules, e.g. football, and sports such as ice dancing, where the only measure of victory is a set of points awarded by judges. Doc 1 attempts to express this idea but performs a certain amount of equivocation. However, the point that victory in subjective sports depends largely upon opinion still stands. Therefore, subjective sports are different from other sports. The fact that some sports blur the line, like those annotated with a ‘b’ in Doc 5, does not mean a workable line cannot be drawn.</p>	

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Question	Answer	Marks
4	<p>The perceived unfairness of results in subjective sports annoys many people and could turn them off the Olympics. It is true that bias can occur in non-objective sports, as D3 suggests. However, the problem of bias is magnified in subjective sports because judgement is such a big part of the sport. Accusations, such as those mentioned in Docs 1 and 4 are real. Although Doc 4 is a single event, it seems likely that this pattern is repeated – we all know it happens in the Eurovision Song Contest.</p> <p>Doc 1 and Doc 2 have differing opinions about whether subjective sports are real sports. However, the point is not whether judged sports are real sports, but whether they should be in the Olympics. Doc 1 bases its conclusion that they are not sports on a (probably wrong) stipulative definition that uses the aforementioned Olympic motto. However, it is not stipulative to use the same motto as a criterion for inclusion in the Olympics. D1 attempts to argue that subjective sports are against the Olympic tradition but manages only to be self-contradictory and D3 cites some great gymnasts of the past as counter examples. But these appeals to tradition are irrelevant – traditions can change, and often for the better. The issue is whether these sports live up to Olympic ideals. If Olympic ideals can be summarized as ‘Swifter. Higher. Stronger.’, and we have nothing better to go on from the Docs, then subjective sports do not meet Olympic ideals.</p> <p>Doc 3 seems to be written in a more measured tone than Doc 1, but on the issue of Olympic ideals, Doc 3 uses a stipulative definition and the credibility of Doc 3 is undermined somewhat by the use of a glaring <i>ad hominem</i> about newspaper columnists, and the reference to boxing in Doc 1 means that Doc 3’s claim about boxing is demonstrably wrong. (The failings of Doc 1 do not undermine the existence of this evidence.) Doc 3 is also likely to lack neutrality on the issue because of the author’s diving background. So, Doc 3 might not be as reliable a source as it seems at first glance.</p> <p>Doc 3 also suggests that the choices of the IOC should not (and, by implication, never) be questioned. The IOC could certainly beat most of us on the expertise front, but Doc 2 says the IOC contains former sports people and current sports leaders. Many of these individuals will have a subjective-sport background and are likely to lack neutrality when it comes to their own sport. Moreover, their objective-sport colleagues might not want to upset their subjective-sport friends by lobbying against that sport. Furthermore, Doc 1’s trendiness accusations are supported by Doc 2. Fifty percent of the new sports mentioned in Doc 2 are judged ones and all of the dropped sports seem to be of the objective type. Doc 2 then gives the example of breakdancing! We are, therefore, justified in questioning decisions made by the IOC.</p> <p>According to Doc 5 there are only 4 sports and 1 equestrian discipline that are currently subjective. In addition, gymnastics excluded, the popularity of such sports is not high. If, as Doc 2 states, there is an upper limit on competitor numbers, then dropping these 4 or 5 sports could make room for baseball, for example. So, the range of sports included in the Olympics would not be greatly diminished if subjective sports were excluded.</p> <p>So, for many reasons, subjective sports should not be included in the Olympics.</p>	

Level	Structure*	Use of documents	Quality of argument
	<ul style="list-style-type: none"> <li>Conclusion (MC)</li> <li>Intermediate conclusions (ICs)</li> <li>Strands of reasoning</li> <li>Examples or evidence</li> <li>Original analogy</li> <li>Hypothetical reasoning</li> </ul>	<ul style="list-style-type: none"> <li>Reference to documents</li> <li>Evaluation of documents</li> <li>Comparison of documents</li> <li>(corroboration or contradiction)</li> <li>Inference from documents</li> </ul>	<ul style="list-style-type: none"> <li>Comprehensive and persuasive argument</li> <li>Logical order of reasoning</li> <li>Relevant material</li> <li>Treatment of counter-positions</li> <li>Absence of flaws and weaknesses</li> <li>Non-reliance on rhetorical devices</li> </ul>
3	Excellent use of structural elements: 7–9 <ul style="list-style-type: none"> <li>Precise conclusion</li> <li>Multiple valid explicit ICs that support the MC</li> <li>Multiple clear strands of reasoning</li> <li>Some effective use of other argument elements to support reasoning</li> </ul>	Excellent use of documents: 7–9 <ul style="list-style-type: none"> <li>Judicious reference to at least three documents</li> <li>Multiple valid evaluative points, clearly expressed and used to support reasoning</li> <li>Some comparison of or inference from documents</li> </ul>	Excellent quality of argument: 7–9 <ul style="list-style-type: none"> <li>Sustained persuasive reasoning</li> <li>Highly effective order of reasoning</li> <li>Very little irrelevant material</li> <li>Key counter-position(s) considered with effective response</li> <li>Very few flaws or weaknesses</li> <li>No gratuitous rhetorical devices</li> </ul>
2	Good use of structural elements: 4–6 <ul style="list-style-type: none"> <li>Clear conclusion</li> <li>More than one valid IC (may be implied)</li> <li>Some strands of reasoning</li> <li>Some use of other argument elements</li> </ul>	Good use of documents: 4–6 <ul style="list-style-type: none"> <li>Relevant reference to at least two documents</li> <li>At least two evaluative points used to support reasoning</li> <li>May be some comparison of or inference from documents</li> </ul>	Good quality of argument: 4–6 <ul style="list-style-type: none"> <li>Reasonably persuasive reasoning</li> <li>Unconfused order of reasoning</li> <li>Not much irrelevant material</li> <li>Some counter-position(s) considered with some response</li> <li>Not many flaws or weaknesses</li> <li>May be some reliance on rhetorical devices</li> </ul>
1	Some use of structural elements: 1–3 <i>There may be:</i> <ul style="list-style-type: none"> <li>Conclusion</li> <li>Implied ICs</li> <li>Some strands of reasoning</li> <li>Some use of other argument elements</li> </ul>	Some use of documents: 1–3 <i>There may be:</i> <ul style="list-style-type: none"> <li>Reference, perhaps implicit, to a document</li> <li>Some evaluation of a document</li> <li>Some comparison of or inference from documents</li> </ul>	Some quality of argument: 1–3 <i>There may be:</i> <ul style="list-style-type: none"> <li>Some support for the conclusion</li> <li>Some order to the reasoning</li> <li>Some relevant material</li> <li>Some counter-position(s) considered with some response</li> </ul>
0	No creditable response 0	No creditable response 0	No creditable response 0

\*Cap mark for Structure at 3 if no conclusion given