

Cambridge International AS & A Level

THINKING SKILLS**9694/11**

Paper 1 Problem Solving

October/November 2025**MARK SCHEME**Maximum Mark: 50

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 October/November 2025 series for most Cambridge IGCSE, Cambridge International A and AS Level components, and some Cambridge O Level components.

This document consists of **8** printed pages.

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.

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 item
	Incorrect item
	Individual mark of partial credit
	Double mark of partial credit
	Essential element of answer/working missing
	Judged to be not good enough to earn the relevant credit
	Benefit of doubt
	Correct follow through
	Transcription error
	Special case
	Working seen but no credit awarded; blank page checked
Highlighter	Use anywhere it is helpful to clarify the marking

NOTES FOR MARKERS**Working**

Where a final answer is underlined in the mark scheme, full marks are awarded for a correct answer, regardless of whether there is any supporting working, unless an exception is noted in the mark scheme.

For partial credit, the evidence needed to award the mark will usually be shown on its own line in the mark scheme, or else will be defined in italic text.

For explanations and verbal justifications, apply the principle of ‘words to that effect’.

Units

Unless required by the question or mark scheme, units such as \$ do not need to be seen to award the marks.

No response

If there is any attempt at a solution award 0 marks not NR. ‘–’ or ‘?’ constitute no attempt at a solution.

Abbreviations

The following abbreviations may be used in a mark scheme:

AG	answer given (on question paper)
awrt	answer which rounds to
dep	mark depends on earlier, asterisked (*), mark
ft	follow through (from earlier error)
oe	or equivalent
SC	special case
soi	seen or implied

Question	Answer	Marks
1(a)	<u>5h 30m</u>	1
1(b)	(Time in car park =) 2h 36m (156m) OR (time charged =) 2h 6m (126m) [1] Charge = $9 \times 50\phi = \$4.50$ SC: 1 mark for answer \$5.50 (charge including the first 30 minutes)	2

Question	Answer	Marks
2	Each cycle from start of red light to start of the next red is 150 seconds [1] There will be a wait of 60 seconds, followed by four of the above cycles, for $60 + 150 + 150 + 150 + 150 = \underline{660 \text{ seconds}}$ (11 minutes) SC: 1 mark for final answer of 600 OR 690 (seconds)	2

Question	Answer	Marks
3	Rustlers 5 points: 1 win and 2 draws [1] Other outcomes are DDD, DDD, LDD The Koolers scored <u>2</u> points	2

Question	Answer	Marks
4(a)	One swap moves only 2 places, and more than 4 have changed	1
4(b)	(3,4) and exactly two of (5,1) (1,2) (2,5) OR Complete sequence, e.g. 12345 – 21345 – 51342 – 51432	1

Question	Answer	Marks
5(a)	Membership saves \$2 per hour of tennis [1] $\$40 / 2 = \underline{20}$ hours OR $5x = 40 + 3x$ [1] $x = \underline{20}$ SC: 1 mark for answer 19	2
5(b)	<u>16</u>	1

Question	Answer	Marks																																																												
6(a)	<u>0.2.3.8.9</u>	1																																																												
6(b)(i)	<u>2.5.6</u>	1																																																												
6(b)(ii)	8→<u>9</u>→7→1 8→<u>9</u>→4→1 8→<u>9</u>→3→1 8→<u>3</u>→7→1 8→<u>0</u>→7→1 Award marks as follows: Number of answers given <table><tr><td></td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9+</td></tr><tr><td>1</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>2</td><td></td><td>1</td><td>1</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>3</td><td></td><td></td><td>2</td><td>1</td><td>1</td><td>0</td><td>0</td><td>0</td><td>0</td></tr><tr><td>4</td><td></td><td></td><td></td><td>2</td><td>2</td><td>1</td><td>1</td><td>0</td><td>0</td></tr><tr><td>5</td><td></td><td></td><td></td><td></td><td>3</td><td>2</td><td>2</td><td>1</td><td>0</td></tr></table> Number correct SC: 1 mark for 8→9→3→7→1 and no others		1	2	3	4	5	6	7	8	9+	1	0	0	0	0	0	0	0	0	0	2		1	1	0	0	0	0	0	0	3			2	1	1	0	0	0	0	4				2	2	1	1	0	0	5					3	2	2	1	0	3
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4				2	2	1	1	0	0																																																					
5					3	2	2	1	0																																																					

Question	Answer	Marks
7(a)	<u>C A B</u> <i>Award 1 mark for any one of:</i> In week 1, C is best at \$20 In week 2, A is best at \$9 In week 3, B is best at \$12 <i>SC: 1 mark for A \$48, B \$48, C \$46</i>	2
7(b)	<u>Comparison of correct values for all 3 sellers for all 6 weeks so C</u> <i>Award 1 mark for any one of:</i> For A, the six-week costs are \$6, \$9, \$15, \$18, \$24, \$27 For B, the six-week costs are \$6, \$12, \$12, \$18, \$24, \$24 For C, the six-week costs are \$6, \$11, \$15, \$18, \$20, \$21	2

Question	Answer	Marks
8(a)	First session at 9:30 and last session at 16:30, so total number of sessions is <u>8</u>	1
8(b)	Maximum income = $9 \times 4 \times 10 \times \$15 = \$5400$	1
8(c)	<u>11 canoeing, 7 windsurfing</u> <i>1 mark for any two correct sums of multiples of 12 and 25 OR for two correct subtractions from 307 of a multiple of 12 or 25 and verifying whether the remainder is a multiple of the other</i>	2
8(d)	Diving 10:00 to 10:40, Canoeing 10:45 to 11:15, Swimming 11:30 to <u>12:15</u>	1
8(e)	Correct start times for CDWS (10:15, 11:00, 12:10, 13:30) or CWDS (10:15, 11:10, 13:00, 14:30) [1] (Last session ends at 14:15 or 15:15 Time at centre: 10:15 to 14:15, so) 4 hours [1]	2

Question	Answer	Marks
9(a)(i)	<u>15:30</u>	1
9(a)(ii)	<u>6</u> <i>SC: 1 mark for 5 only if answer of 15:36 in (i)</i>	1
9(b)(i)	She completed the course in 7m 43s / 463s [1] less than 50 minutes so $463 + 120 = 583$ points	2
9(b)(ii)	14m 14s puzzle time so <u>28m 3s</u> running time	1

Question	Answer	Marks
10(a)	Maximum score in one round is $5 \times 2 + 5 \times 3 = 25$ points <u>125</u>	1
10(b)	6 correct answers and 1 of the others answered correctly by other team members. ($5 \times 2 + 1 \times 3 + 1 \times 1$) 5 correct answers and 4 of the others answered correctly by other team members. ($5 \times 2 + 4 \times 1$) 4 correct answers and 6 of the others answered correctly by other team members. ($4 \times 2 + 6 \times 1$) <i>2 marks for all correct and no others 1 mark for any one correct</i>	2

Question	Answer	Marks
10(c)	19 [1] 7 correct by chosen team member and 3 correct by others AND 8 correct by chosen team member and 0 other correct [1]	2

Question	Answer	Marks
11(a)(i)	<u>22 000</u> steps	1
11(a)(ii)	<u>13 January</u>	1
11(b)	In 10 days she will walk 50 000 'standard' steps [1] Plus (1 + 2 + 3 + 4 + 5 + 6 + 7 + 8 + 9) lots of bonus steps [1] (77 000 – 50 000)/45 = <u>600</u>	3

Question	Answer	Marks
12	a rose by any ohter nmae would sleml as sewet 2 6 2 6 6 3 ways to write <i>Award 1 mark for correct numbers/lists of possibilities for four of the words</i> $2 \times 6 \times 2 \times 6 \times 6 \times 3$ [1] (= 2592) <u>2591</u> <i>SC: 2 marks for final answer of 5182 or 5183</i> <i>SC: 1 mark for final answer of 5184</i>	3

Question	Answer	Marks
13(a)	The sum of the recorded numbers is 180, when it should be 144. Difference between wrong number and correct number must be 36 [1] <u>15</u> or <u>51</u>	2
13(b)	<u>35 and 71</u> or <u>53 and 17</u>	1
13(c)	<u>2.51</u> (should be 25.1)	1