UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
Cambridge International Primary Achievement Test

MATHEMATICS **0842/01**

Paper 1 **May/June 2008**

MARK SCHEME

Maximum Mark : 39

3973996880

IMPORTANT NOTICE

Mark Schemes have been issued on the basis of **one** copy per Assistant examiner and **two** copies per Team Leader.

This document consists of **12** printed pages.

UNIVERSITY of CAMBRIDGE International Examinations

Mathematics mark schemes – Achievement Test

Guidelines for marking test papers

These mark schemes are designed to provide you with all the information necessary to mark the Primary Mathematics Achievement Tests. As far as possible, the mark schemes give you full guidance regarding acceptable and unacceptable alternative answers and, where appropriate, include examples of student work to illustrate the marking points. However, it is not always possible to predict all the alternative answers that may be produced by students and there could be places where the marker will have to use their professional judgement. In these cases it is essential that such judgement be applied consistently.

The guidelines below should be followed throughout (**unless the mark scheme states otherwise**):

- A correct answer should always be awarded full marks even if the working shown is wrong.
- Where more than one mark is available for a question the mark scheme explains where each mark should be awarded. In some cases marks are available for demonstration of the correct method even if the final answer is incorrect. The method marks can be awarded if the correct method is used but a mistake has been made in the calculation, resulting in a wrong answer. Method marks can also be awarded if the calculation is set up and performed correctly but incorrect values have been used, e.g. due to misreading the question or a mistake earlier in a series of calculations.
- If a question uses the answer to a previous question or part question that the child answered incorrectly, all available marks can be awarded for the latter question if appropriate calculations are performed correctly using the value carried forward. Places where such consideration should be made are indicated in the mark schemes. In these cases, it is not possible to provide all the alternative acceptable answers and the marker must follow the child's working to determine whether credit should be given or not.
- Half marks should not be awarded and at no point should an answer be awarded more than the maximum number of marks available, regardless of the quality of the answer.
- If the child has given more than one answer, the marks can be awarded if all the answers given are correct. However, if correct and incorrect answers are given together, marks should not be awarded (marks for correct working out can still be gained).
- If the answer line is blank but the correct answer is given elsewhere, e.g. an annotation on a graph or at the end of the working out, the marks can be awarded provided it is clear that the child has understood the requirements of the question.
- If the response on the answer line is incorrect but the correct answer is shown elsewhere, full marks can still be awarded if the child has made the error when copying the answer onto the answer line. If the incorrect final answer is the result of redundant additional working after the correct answer had been reached, the marks can be awarded provided the extra work does not contradict that already done.

- Each question and part question should be considered independently and marks for one question should not be disallowed if they are contradicted by working or answers in another question or part question.
- Any legible crossed-out work that has not been replaced can be marked; but, if work has been replaced, the crossed-out part should be ignored.
- If the child's response is numerically or algebraically equivalent to the answer in the mark scheme, the mark should be given unless a particular form of answer was specified by the question.
- Diagrams, symbols or words are acceptable for explanations or responses.
- Where students are required to indicate the correct answer in a specific way, e.g. by underlining, marks should be awarded for any unambiguous indication, e.g. circling or ticking.
- Any method of setting out working should be accepted.
- Standard rules for acceptable formats of answers involving units, money, duration and time are given overleaf.

Each question on the test paper has a box beside it for the teacher to record the mark obtained. It is advisable to use these boxes so that students, and others looking at the test papers, can clearly see where the marks have been awarded.

It should also be noted that marking in red ink and using the mark boxes is an essential requirement for the Achievement tests.

General rules for alternative answers

In most places on the mark schemes acceptable and unacceptable alternative answers are given in detail, however some general rules are given overleaf and are not necessarily repeated in full for each question that they apply.

Number and Place value

The table shows various general rules in terms of acceptable decimal answers.

Accept
Accept omission of leading zero if answer is clearly shown, e.g. **.675**
Accept tailing zeros, unless the question has asked for a specific number of decimal places, e.g. **0.7000**
Always accept appropriate tailing zeros, e.g. **3.00m; 5.000kg**
Accept a comma as a decimal point if that is that convention that you have taught the children, e.g. **0,638**

Units

For questions involving quantities, e.g. length, mass, time or money, correct units must be given in the answer. The table shows acceptable and unacceptable versions of the answer 1.85m.

	Correct answer	**Also accept**	**Do not accept**
Units are not given on answer line and question does not specify unit for the answer.	1.85m	Correct conversions provided that the unit is stated, e.g. 1m 85cm 185cm 1850mm 0.00185km	1.85 185m
If the unit is given on the answer line, e.g. ……m	…..1.85…… m	Correct conversions, provided the unit is stated unambiguously, e.g. …..185cm….. m	…..185……m …..1850…. m etc.
If the question states the unit that the answer should be given in a specified unit, e.g. "Give your answer in metres"	1.85m	1.85 1m 85cm	185; 1850 Any conversions to other units, e.g. 185cm

Note: if the answer line is left blank but the correct answer is given elsewhere on the page, it can be marked correct if the units match those on the answer line or are unambiguously stated.

Money

For questions involving money, it is essential that appropriate units are given in the answer.

The table shows acceptable and unacceptable versions.

	Accept	**Do not accept**
If the amount is in dollars and cents, the answer should be given to two decimal places.	\$0.30 \$9 or \$9.00	
If units are not given on answer line	Any unambiguous indication of the correct amount, e.g. 30 cents; 30 c \$0.30; \$0.30c; \$0.30cents \$0-30; \$0=30; \$0:30	30 or 0.30 without a unit Incorrect or ambiguous answers, e.g. \$0.3; \$30; \$30cents; 0.30cents
If \$ is shown on the answer line	\$.....**0.30**..... \$.....**0.30 cents….** Accept all unambiguous indications, as shown above	\$.....**30**..... \$.....**30 cents….** (this cannot be accepted because it is ambiguous, but if the dollar sign is deleted it becomes acceptable)
If cents is shown on the answer line	.....**30**.....cents .....**\$0.30**.....cents	.....**0.30**.....cents .....**\$30**.....cents

Duration

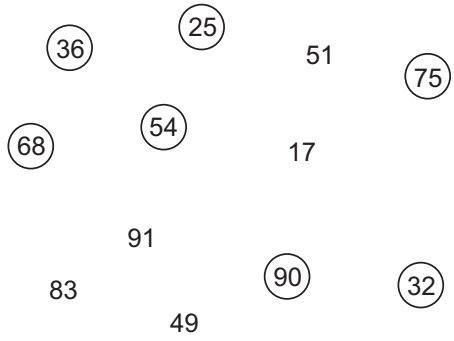
Accept any unambiguous method of showing duration and all reasonable abbreviations of hours (h, hr, hrs), minutes (m, min, mins) and seconds (s, sec, secs).

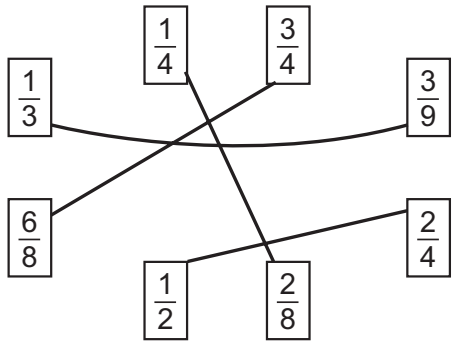
Accept	Do not accept
Any unambiguous indication using any reasonable abbreviations of hours (h, hr, hrs), minutes (m, min, mins) and seconds (s, sec, secs), e.g. 2 hours 30 minutes; 2h 30m; 02h 30m 5 min 24 sec; 00h 05m 24s	Incorrect or ambiguous formats, e.g. 2.30; 2.3; 2.30 hours; 2.30 min; 2h 3; 2.3h
Any correct conversion with appropriate units, e.g. 2.5 hours; 150 mins 324 seconds	2.5; 150 304
Also accept unambiguous digital stopwatch format, e.g. 02:30:00 00:05:24; 05:24s	Do not accept ambiguous indications, e.g. 02:30 5.24

Time

There are many ways to write times, in both numbers and words, and marks should be awarded for any unambiguous method. Accept time written in numbers or words unless there is a specific instruction in the question. Some examples are given in the table.

Accept	Do not accept
Any unambiguous indication of correct answer in numbers, words or a combination of the two, e.g. 07:30, 19:00	Incorrect or ambiguous formats, e.g.
0730; 07 30; 07.30; 07,30; 07-30; 7.30; 730 a.m.; 7.30am; 7.30 in the morning	07.3; 073; 07 3; 730; 73; 7.3; 7.3am; 7.30p.m
Half past seven (o'clock) in the morning Thirty minutes past seven am Also accept: O-seven-thirty	
1900; 19 00; 19_00 etc.	19; 190; 19 000; 19.00am; 7.00am
Nineteen hundred (hours) Seven o'clock in the afternoon/evening	
Accept correct conversion to 12-hour clock, e.g. 16:42 4:42 p.m.	4.42am; 0442; 4.42
Sixteen forty two Four-forty-two in the afternoon/evening Four forty two p.m. Forty two (minutes) past four p.m. Eighteen (minutes) to five in the evening	Forty two (minutes) past sixteen Eighteen (minutes) to seventeen
Also accept a combination of numbers and words, e.g. 18 minutes to 5 p.m. 42 minutes past 4 in the afternoon	

Question	Mark	Answer	Additional information
1 2Nn5	2		All 7 circles correct – 2 marks – with no wrong. 6 circles correct – 1 mark – with one wrong.

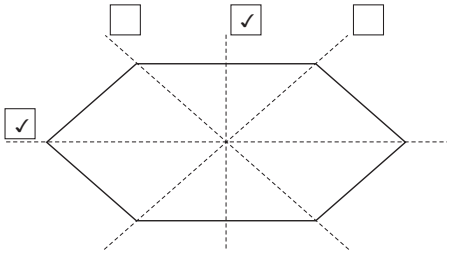
Question	Mark	Answer	Additional information
2 3Nn13	1		

Question	Mark	Answer	Additional information
3 3Nc9	2	10	2 marks for correct answer 1 mark can be awarded if evidence of: 43÷4=10 rem.3 **or** 43÷4=10.75

Question	Mark	Answer	Additional information
4 3P4	1	I think Monty is **wrong** because	The explanation should include the statement that: $1.00-72c=28c (not 18c) **or** 72c+18c=90c **or** 72c+28c=100c ($1) **or** $1.00-28c=72c The mark is given for the word "wrong" **and** the explanation.

Question	Mark	Answer	Additional information
5 **a** 3P2	1	10	
b 3P2	1	6	

Question	Mark	Answer	Additional information
6 3D1	1	16	

Question	Mark	Answer	Additional information
7 3Ss3	1		Both correct for answer. No other ticks

Question	Mark	Answer	Additional information
8 3Sp2	1	West	

Question	Mark	Answer	Additional information
9 3Sm7	1	2 ½ 2.5 $2\frac{30}{60}$	Accept “two and a half”, also 2 (two) minutes 30 (thirty) seconds.

Question	Mark	Answer	Additional information
10 4Nn9	1	17 | 11 | 5 | -1 | -7 | -13	Both correct for mark.

Question	Mark	Answer	Additional information
11 **a** 4Nn13	1	2/6	Also accept 1/3
b 4Nn13	1	1 3/4	Also accept 1 6/8

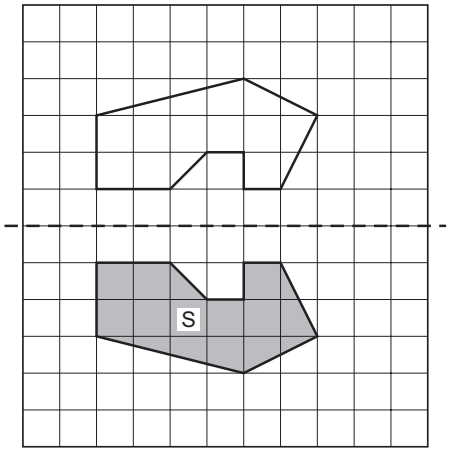
Question	Mark	Answer	Additional information
12 **a** 4Nc9	1	56	
b 4Nc13	1	2400	

Question	Mark	Answer	Additional information
13 4Nc7	1	12	

Question	Mark	Answer	Additional information
14 **a** 4P1	1	36	
b 4P1	1	224	

Question	Mark	Answer	Additional information
15 **a** 4P5	1	$34.95	
b 4P5	1	$19.50	Accept $19.5

Question			Mark	Answer	Additional information
16	**a**	4D1	1	25	
	b	4D1	1	50	

Question	Mark	Answer	Additional information
17 4Ss5	1		The shape must be accurate enough to show the student understands this reflection.

Question			Mark	Answer	Additional information
18	**a**	4Sp9	1	45	
	b	4Sp10	1	a c d b	

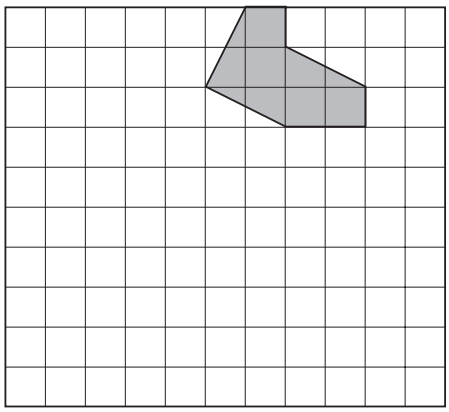
Question			Mark	Answer	Additional information
19	**a**	4Sm9	1	58 minutes	
	b	4Sm9	1	6 minutes	Accept if 19a-52=19b

Question			Mark	Answer	Additional information
20	**a**	5Nn16	1	62	
	b	5Nn16	1	37	

Question			Mark	Answer	Additional information
21	**a**	5Nc3	1	9320	
	b	5Nc3	1	12194	(also give 1 mark if (a) is wrong but (b) = a + 2874)

Question	Mark	Answer	Additional information
22 5P4	1	"Five lots of b are equal to a"	Also accept equivalent implying that **a** is equal to five times **b**; or **a** is five times bigger than **b**; or five times **b** makes **a**; also accept answers including an example **in addition to** the explanation, e.g. If **a** equals 10, **b** equals 2, because 5 times 2 = 10.

Question	Mark	Answer	Additional information
23 **a** 6D5	1	47.6	
b 6D5	1	47	

Question	Mark	Answer	Additional information
24 5Ss5	1		Drawing must be accurate enough to show that the student understands this translation.

Question	Mark	Answer	Additional information
25 6Sp5	1	32	

Question	Mark	Answer	Additional information
26 6Sm2	1	345	