Cambridge Assessment International Education

Cambridge Primary Progression Test

Mathematics mark scheme

Stage 5

MATHS_MS_S5_5RP

General guidance on marking

Difference in printing

It is suggested that schools check their printed copies for differences in printing that may affect the answers to the questions, for example in measurement questions.

Brackets in mark scheme

When brackets appear in the mark scheme this indicates extra information that is not required for the award of the mark(s).

For example:

A question requiring an answer in grams may have an answer line: ..... grams

The mark scheme will show the word ‘grams’ in brackets.

These tables give general guidelines on marking learner responses that aren’t specifically mentioned in the mark scheme. Any guidance specifically given in the mark scheme supersedes this guidance.

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**
Accept a comma as a decimal point if that is the convention that you have taught the learners, e.g. **0,638**

Units

For questions involving quantities, e.g. length, mass, money, duration or time, correct units must be given in the answer. Units are provided on the answer line unless finding the units is part of what is being assessed.

The table shows acceptable and unacceptable versions of the answer 1.85 m.

	Accept	Do not accept
If the unit is given on the answer line, e.g. ..... m	Correct conversions, provided the unit is stated unambiguously, e.g. .....185 cm..... m (this is unambiguous since the unit cm comes straight after the answer, voiding the m which is now not next to the answer)	.....185..... m .....1850..... m etc.
If the question states the unit that the answer should be given in, e.g. ‘Give your answer in metres’	1.85 1 m 85 cm	185; 1850 Any conversions to other units, e.g. 185 cm

Money

In addition to the rules for units, the table below gives guidance for answers involving money.

The table shows acceptable and unacceptable versions of the answer $0.30.

	Accept	**Do not accept**
If the amount is in dollars and cents, the answer should be given to two decimal places.	$0.30 For an integer number of dollars it is acceptable not to give any decimal places, e.g. $9 or $9.00	$0.3
If units are not given on the answer line	Any unambiguous indication of the correct amount, e.g. 30 cents; 30 c $0.30; $0-30; $00:30	30 or 0.30 without a unit $30; 0.30 cents. Ambiguous answers, e.g. $30 cents; $0.30 c; $0.30 cents (as you do not know which unit applies because there are units either side of the number)
If $ is shown on the answer line	All unambiguous indications, e.g. $.....0.30.....; $.....0-30.....; $.....00:30.....	$.....30..... Ambiguous answers, e.g. $.....30 cents.....; $.....0.30 cents..... **unless** units on the answer line have been deleted, e.g. ~~$~~.....30 cents.....
If cents is shown on the answer line	.....30.....cents	.....0.30.....cents Ambiguous answers, e.g. .....$30 .....cents; .....$0.30 .....cents **unless** units on the answer line have been deleted, e.g. .....$0.30..... ~~cents~~

Duration

In addition to the rules for units, the table below gives guidance for answers involving time durations.

The table shows acceptable and unacceptable versions of the answer 2 hours and 30 minutes.

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; 2 h 30 m; 02 h 30 m Any correct conversion with appropriate units, e.g. 2.5 hours; 150 mins – **unless** the question specifically asks for time given in hours and minutes	Incorrect or ambiguous formats, e.g. 2.30; 2.3; 2.30 hours; 2.30 min; 2 h 3; 2.3 h (this is because this indicates 0.3, i.e. 18 minutes, of an hour rather than 30 minutes) 02:30 (as this is a 24-hour clock time, not a time interval) 2.5; 150

Time

The table below gives guidance for answers involving time.

The table shows acceptable and unacceptable versions of the answer 07:30.

	Accept	Do not accept
If the answer is required in 24-hour format	Any unambiguous indication of correct answer in numbers, words or a combination of the two, e.g. 07:30 with any or no separator in place of the colon, e.g. 07 30; 07,30; 07-30; 0730	7:30 7:30 am 7 h 30 m 7:3 730 7.30 pm 073 07.3
If the answer is required in 12-hour format	Any unambiguous indication of correct answer in numbers, words or a combination of the two, e.g. 7:30 am with any separator in place of the colon, e.g. 7 30 am; 7.30 am; 7-30 am 7.30 in the morning Half past seven (o'clock) in the morning Accept am or a.m.	Absence of am or pm 1930 am 7 h 30 m 7:3 730 7.30 pm

Negative numbers

The table shows acceptable and unacceptable versions of the answer −2.

Accept	Do not accept
−2	2−

Stage 5 Paper 1 Mark scheme

Question	1		
Part	**Mark**	**Answer**	**Further Information**
	1	211 43	Both answers must be correct for 1 mark.
Total	**1**		

Question	2		
Part	**Mark**	**Answer**	**Further Information**
	1	0.7 **and** 0.4	Both answers must be correct for 1 mark.
Total	**1**		

Question	3		
Part	**Mark**	**Answer**	**Further Information**
(a)	1	6 × 19 | 114 6 × 20 | 120	
(b)	1	9 × 20 | 180 9 × 21 | 189	
Total	**2**		

Question	4		
Part	**Mark**	**Answer**	**Further Information**
	1	8.6 2.7	Both answers must be correct for 1 mark.
Total	**1**		

Question	5		
Part	**Mark**	**Answer**	**Further Information**
	1	390 (seats)	
Total	**1**		

Question	6		
Part	**Mark**	**Answer**	**Further Information**
	1	7.3	Accept $7\frac{3}{10}$ Do not accept 7 remainder 3.
Total	**1**		

Question	7		
Part	**Mark**	**Answer**	**Further Information**
	1	631 691	Both answers must be correct for 1 mark.
Total	**1**		

Question	8		
Part	**Mark**	**Answer**	**Further Information**
(a)	1	($) 61.19	
(b)	1	($) 38.81	Allow follow-through as 100 – incorrect answer to **(a)**.
Total	**2**		

Question	9		
Part	**Mark**	**Answer**	**Further Information**
(a)	1	3.5 (cm)	Accept 3.3 (cm) to 3.7 (cm).
(b)	1	22.5 (cm)	
Total	**2**		

Question	10		
Part	**Mark**	**Answer**	**Further Information**
	1	1900 1850 1846 1840 (1800)	
Total	**1**		

Question	11		
Part	**Mark**	**Answer**	**Further Information**
(a)	1	(acute) obtuse right-angled left-angled	
(b)	1	angle A [=] angle B angle A [=] angle C	
Total	**2**		

Question	12		
Part	**Mark**	**Answer**	**Further Information**
	1	30 (%)	
Total	**1**		

Question	13		
Part	**Mark**	**Answer**	**Further Information**
	1	Scalene ringed AND explanation that states: All of the sides are of different length. **or** All angles are different. **or** All sides and all angles are different. **or** It has no line of symmetry.	Do not allow 'Scalene' with no explanation.
Total	**1**		

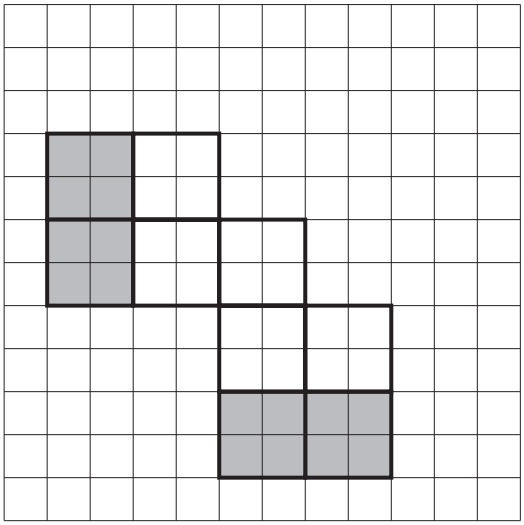
Question	14		
Part	**Mark**	**Answer**	**Further Information**
	2	48	Award 1 mark for a complete, correct method containing arithmetic errors, e.g. 173 – (69 + 56) = wrong answer
Total	**2**		

Question	15		
Part	**Mark**	**Answer**	**Further Information**
	1	A correct calculation with answers of 7, 14, 21, 28 and so on, e.g. 33 – [5] = [28]	Accept negative numbers in the **first** box, e.g. 33 – [–2] = [35]
Total	**1**		

Question	16		
Part	**Mark**	**Answer**	**Further Information**
	2	(1) 2 (3) (5) 7 (9) 11 13 (15) (45)	Award 1 mark for 4 or 5 factors identified and no incorrect factors **or** for 6 correct factors identified plus one incorrect factor.
Total	**2**		

Question	17		
Part	**Mark**	**Answer**	**Further Information**
	1	(3 × [100]) + ([4] × 10) + (7 × [1])	All 3 must be correct for 1 mark.
Total	**1**		

Question	18		
Part	**Mark**	**Answer**	**Further Information**
	1	850 **or** 900 **or** 950	Do **not** accept 800.
Total	**1**		

Question	19		
Part	**Mark**	**Answer**	**Further Information**
	1	Accept a square in any of the four positions indicated. 	Do not accept 2 or more squares offered.
Total	**1**		

Question	20		
Part	**Mark**	**Answer**	**Further Information**
	1	7:46 (am) or equivalent	Do not accept 19:46 or 7:46 pm.
Total	**1**		

Question	21		
Part	**Mark**	**Answer**	**Further Information**
	1	$\frac{1}{2}$ 0.55 0.6 $\frac{65}{100}$	Accept equivalent fractions or decimals.
Total	**1**		

Question	22		
Part	**Mark**	**Answer**	**Further Information**
	1	–4 (°C)	Do not accept 4–.
Total	**1**		

Question	23		
Part	**Mark**	**Answer**	**Further Information**
	1	$\frac{6}{16}$ or $\frac{3}{8}$ **or** six out of sixteen	Accept equivalent fractions, decimals and percentages, including those written in words. Do **not** accept ratios, e.g. 6:10 or 6:16.
Total	**1**		

Question	24		
Part	**Mark**	**Answer**	**Further Information**
	2	Impossible Even chance Unlikely	All 3 correct for 2 marks. Award 1 mark for 2 correct.
Total	**2**		

Question	25		
Part	**Mark**	**Answer**	**Further Information**
	2	37 (oranges)	Award 1 mark for a complete method with arithmetical errors, e.g. (311 – 15) ÷ 8 = wrong answer
Total	**2**		

Question	26		
Part	**Mark**	**Answer**	**Further Information**
	2	<table><tr><th></th><th>hockey</th><th>rounders</th><th>total</th></tr><tr><td>boys</td><td>9</td><td>18</td><td>27</td></tr><tr><td>girls</td><td>17</td><td>6</td><td>23</td></tr><tr><td>total</td><td>26</td><td>24</td><td>50</td></tr></table> All cells must be completed correctly for 2 marks.	Award 1 mark for any 6 correct answers.
Total	**2**		

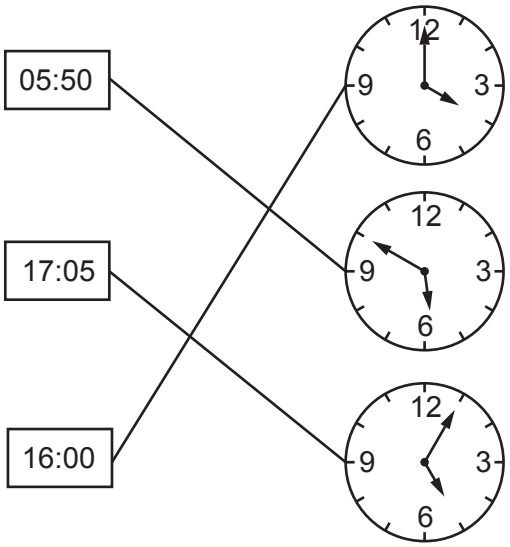
Question	27		
Part	**Mark**	**Answer**	**Further Information**
(a)	1	(regular) hexagon	Accept recognisable misspellings.
(b)	1	square	Accept recognisable misspellings.
Total	**2**		

Question	28		
Part	**Mark**	**Answer**	**Further Information**
	1	5 (quarters)	Accept in words. Do not accept $1\frac{1}{4}$ or $\frac{5}{4}$
Total	**1**		

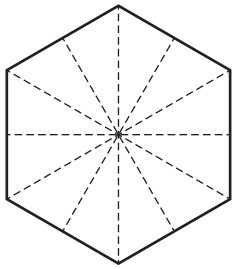
Question	29		
Part	**Mark**	**Answer**	**Further Information**
	1	$\frac{\boxed{4} + (\boxed{4} \times \boxed{4})}{\boxed{4}} = 5$	
Total	**1**		

Question	30		
Part	**Mark**	**Answer**	**Further Information**
	1	180	Accept 181 as the initial flash has been counted.
Total	**1**		

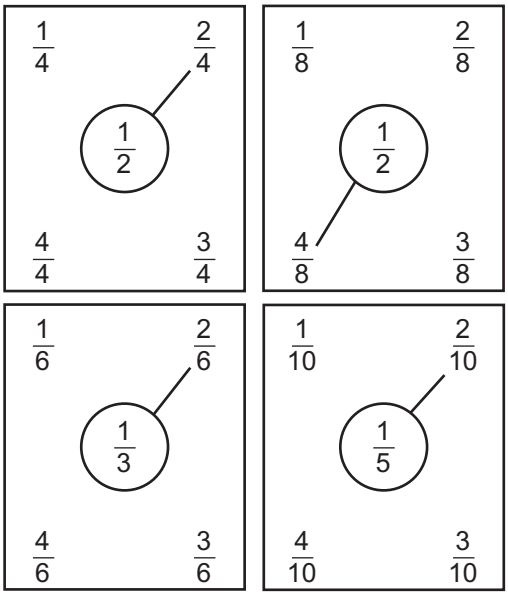
Stage 5 Paper 2 Mark Scheme

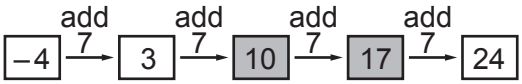
Question	1		
Part	**Mark**	**Answer**	**Further Information**
	1		
Total	**1**		

Question	2		
Part	**Mark**	**Answer**	**Further Information**
	1	3.09 3.14 3.25 3.41 3.90	
Total	**1**		

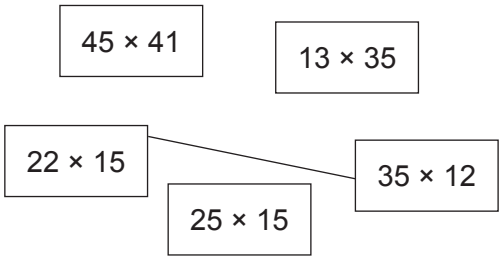
Question	3		
Part	**Mark**	**Answer**	**Further Information**
	1		All 6 lines must be drawn for 1 mark. Accept slight inaccuracies in drawing.
Total	**1**		

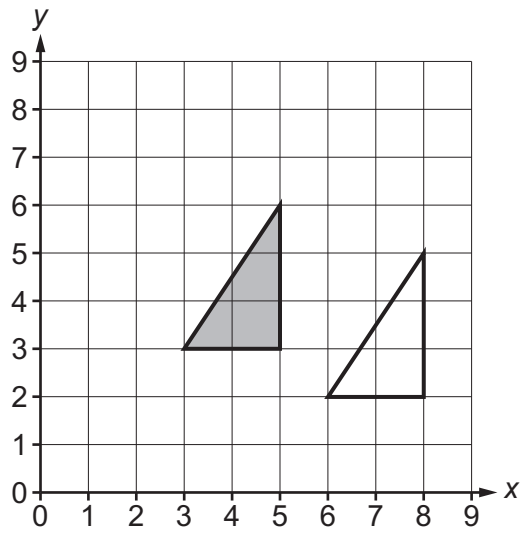
Question	4		
Part	**Mark**	**Answer**	**Further Information**
(a)	1	33 (friends)	
(b)	1	☐ ☐ ✓ ☐	
Total	**2**		

Question	5		
Part	**Mark**	**Answer**	**Further Information**
	2		Award 1 mark for any 2 correct answers.
Total	**2**		

Question	6		
Part	**Mark**	**Answer**	**Further Information**
	2		Award 1 mark for any 2 correct numbers.
Total	**2**		

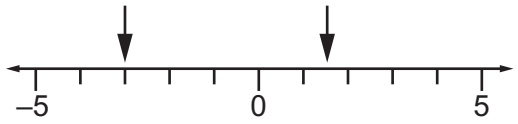
Question	7		
Part	**Mark**	**Answer**	**Further Information**
	1	17 (pages)	
Total	**1**		

Question	8		
Part	**Mark**	**Answer**	**Further Information**
	1		
Total	**1**		

Question	9		
Part	**Mark**	**Answer**	**Further Information**
	1		Accept slight inaccuracies in the drawing provided the intention is clear.
Total	**1**		

Question	10		
Part	**Mark**	**Answer**	**Further Information**
	1	23 g ☐ 0.23 kg ☐ 2.3 kg ☑ 233 kg ☐	
Total	**1**		

Question	11		
Part	**Mark**	**Answer**	**Further Information**
(a)	1	5	
(b)	1	13 (°C)	Accept answers between 12 and 14 exclusive.
Total	**2**		

Question	12		
Part	**Mark**	**Answer**	**Further Information**
	1		Both answers must be correct for 1 mark.
Total	**1**		

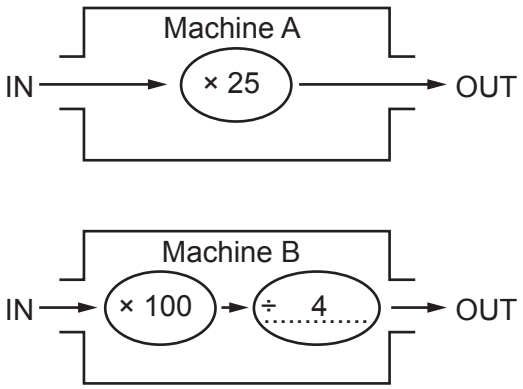
Question	13		
Part	**Mark**	**Answer**	**Further Information**
	1	631 600 **>** 306 016 **>** 100 663 **>** 60 136	
Total	**1**		

Question	14		
Part	**Mark**	**Answer**	**Further Information**
	1	☐ ☐ ☑ ☐	Accept alternative unambiguous indications of the correct answer.
Total	**1**		

Question	15		
Part	**Mark**	**Answer**	**Further Information**
	2	2275 (grams)	Award 1 mark for a correct method with at least one reading correct, e.g. 2600 – wrong answer = wrong answer **or** wrong answer – 325 = wrong answer
Total	**2**		

Question	16		
Part	**Mark**	**Answer**	**Further Information**
	2	never always never sometimes	Award 1 mark for 3 correct answers.
Total	**2**		

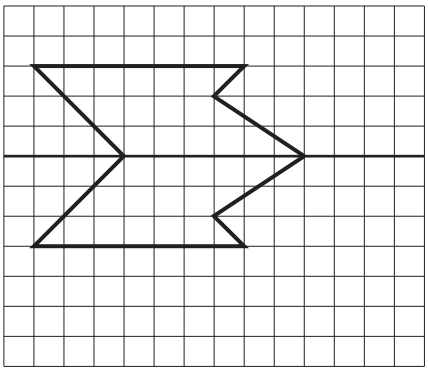
Question	17		
Part	**Mark**	**Answer**	**Further Information**
	1	Explains that 1416 has to be multiplied by 3, e.g. • You multiply 1416 by 3 • 1416 × 3 seen • 1416 + 1416 + 1416 seen • 1416 × 2 + 1416 seen Correct answer not required.	Do not accept 4248 without correct explanation. Do not accept alone 354 × 12 (using long multiplication).
Total	**1**		

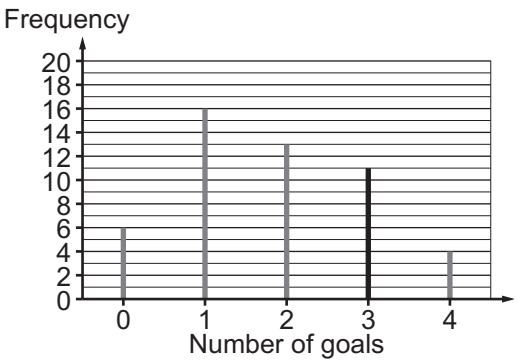
Question	18		
Part	**Mark**	**Answer**	**Further Information**
(a)	1		
(b)	1	81 × 100 = 8100 8100 ÷ 4 = 2025	The method must be clear for the award of the mark.
Total	**2**		

Question	19		
Part	**Mark**	**Answer**	**Further Information**
	1	$5\frac{1}{5}$ $5\frac{2}{5}$ $5\frac{3}{5}$ $5\frac{4}{5}$	Accept any clear indication of the correct answer.
Total	**1**		

Question	20		
Part	**Mark**	**Answer**	**Further Information**
	1	1 **and** 32	Both required for 1 mark.
Total	**1**		

Question	21		
Part	**Mark**	**Answer**	**Further Information**
	1	8 cm 40 cm $\frac{1}{2}$ m 0.9 m	Accept answers which show the measurements accurately converted, e.g. $\frac{1}{2}$ m = 50 cm Accept answers without units.
Total	**1**		

Question	22		
Part	**Mark**	**Answer**	**Further Information**
	1		The diagram must be sufficiently accurate for the intention to be clear.
Total	**1**		

Question	23		
Part	**Mark**	**Answer**	**Further Information**
(a)	1		Accept any clear indication. (frequency is 11)
(b)	1	1	Follow-through from an answer in **(a)** of 16 or over.
Total	**2**		

Question	24		
Part	**Mark**	**Answer**	**Further Information**
	1	70 (boxes)	Do not accept 69 (boxes) **or** 69.83, 69 r5 or $69\frac{5}{6}$
Total	**1**		

Question	25		
Part	**Mark**	**Answer**	**Further Information**
	1	(3, 0)	
Total	**1**		

Question	26		
Part	**Mark**	**Answer**	**Further Information**
	1	60 (cm)	
Total	**1**		

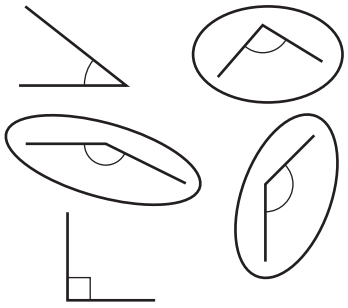
Question	27		
Part	**Mark**	**Answer**	**Further Information**
	1	An explanation that shows: odd + odd + odd = odd **or** odd + odd = even then even + odd = odd **and** 40 is even	Accept: 'Adding three odd numbers could only give 39 or 41.' (both 39 **and** 41 required) Do not accept 'odd numbers cannot be added to make an even number' without mentioning three odd numbers.
Total	**1**		

Question	28		
Part	**Mark**	**Answer**	**Further Information**
	2	119 (m^2)	Award 1 mark for a correct method but with arithmetic errors, e.g. 12 × 12 – 5 × 5 (= 119) **or** for sight of either 144 or 25
Total	**2**		

Question	29		
Part	**Mark**	**Answer**	**Further Information**
	1	81	
Total	**1**		

Question	30		
Part	**Mark**	**Answer**	**Further Information**
	2	42 (kg)	Award 1 mark for a complete correct method containing arithmetic errors, e.g. 20 + 20 + 10% of 20 **or** for sight of 10% of 20 = 2
Total	**2**		

Stage 5 Paper 3 Mark scheme

Question	Mark	Answer	Further Information
1	1	20003	Do not accept answer in words.
2	1	48	
3	1	49	Do not accept 7^2.
4	1	36.5	
5	1	4 (m)	
6	1	4700 (ml)	
7	1	1	
8	1	(4 , 3)	The only acceptable answer.
9	1	130(°)	
10	1	3 (4) (5) (10) 40 60	All numbers must be shown with no extras.
11	1	21 (white beads)	
12	1	113	
13	1		Correct three diagrams must be shown with no extras.
14	1	8 (apples)	
15	1	18 (°C)	
16	1	10	
17	1	230 (ml)	Accept 228 to 232 (ml) inclusive.
18	1	323	
19	1	8 (oranges)	
20	1	1 and 3	Both required for 1 mark.