Mark Scheme (Results)

Summer 2013

PLSC Primary Mathematics (Year 6)
JMA01 Paper 01

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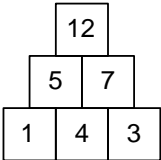
General Marking Guidance

- All candidates must receive the same treatment. Examiners must mark the first candidate in exactly the same way as they mark the last.

- Mark schemes should be applied positively. Candidates must be rewarded for what they have shown they can do rather than penalised for omissions.

- Examiners should mark according to the mark scheme not according to their perception of where the grade boundaries may lie.

- There is no ceiling on achievement. All marks on the mark scheme should be used appropriately.

- All the marks on the mark scheme are designed to be awarded. Examiners should always award full marks if deserved, i.e. if the answer matches the mark scheme. Examiners should also be prepared to award zero marks if the candidate's response is not worthy of credit according to the mark scheme.

- Where some judgement is required, mark schemes will provide the principles by which marks will be awarded and exemplification may be limited.

- Crossed out work should be marked UNLESS the candidate has replaced it with an alternative response.

Section A

Question Number	Answer	Mark
1	D	**1**
2	B	**1**
3	D	**1**
4	B	**1**
5	C	**1**
6	D	**1**
7	A	**1**
8	A	**1**
9	B	**1**
10	D	**1**
11	B	**1**
12	C	**1**
13	D	**1**
14	C	**1**
15	A	**1**
16	A	**1**
17	C	**1**
18	B	**1**
19	A	**1**
20	C	**1**

Section B

Question Number	Working	Answer	Mark	Notes
21	Award 2 marks for any correct pyramid, for example, 12 5 7 1 4 3		2	M1 A1 Award 1 mark for a middle row totalling 12
22(a)		**25**	1	B1
22(b)		Vertical 10 8 6 4 2 0 **Y, R, B, G** Horizontal yellow – red – blue - green	1 1	B1 B1 Accept Y, R, B, G or any unambiguous indication of the correct colours
23	⃝17 ÷ 4 14 ÷ 3 17 ÷ 5⃝ 21 ÷ 4 21 ÷ 5		2	B2 - Award 2 marks for 2 correct answers with no additional answers. B1 - Award 1 mark for 2 correct answers with 1 additional answer **or** 1 correct answer and no additional answers.
24	<table><tr><td>0 lines of symmetry</td><td>1 line of symmetry</td><td>2 lines of symmetry</td><td>3 lines of symmetry</td><td>4 lines of symmetry</td></tr><tr><td>**B**</td><td>**D**</td><td>**C**</td><td></td><td>**A**</td></tr></table>		2	B2 - Award <u>2 marks for 4</u> correct entries. B1 - Award <u>1 mark for 3</u> correct entries. Letters repeated in more than one box = 0 marks
25		**5:15**	1	B1
26		**43**	1	B1

Question Number	Working	Answer	Mark	Notes
27		**Shape 2**	1	B1 Accept any clear indication.
28	$2.00 − 20c = ($1.80) $1.80 ÷ 3	**60 cents** or **$0.60**	2	M1 A1 SCB1: 0.6, £60, $60 (accept any currency units)
29	30% of 30 **or** 30% on the answer line **or** ½→ 15 and 20% → 6 30 − (15 + 6)	**9**	2	M1 A1 SCB1: 12 with working showing 1/5 or 20% of 15 seen OR 21 as 70% with working seen
30	**A bar to show 7 students** choose chocolate +/-2 mm (shading is not required)		1	B1
31		**9**	1	B1
32	5.9 × 2 = 11.8 11.8 − 9.9	**1.9**	2	M1 A1
33	15 ÷ 3 = 5 5 × 2 = 10	**10**	2	M1 Accept for 1 mark evidence of a complete method **or** Sight of 5 (with no incorrect working) A1

Question Number	Working	Answer	Mark	Notes
34	Every 15 customers received free crayons and paints 60 ÷ 15 = 4 **or** 15, 30, 45, 60	**4**	2	B1 15 B1 4
35		**2, 4, 6**	1	B1
36	**Kiki's** graph An explanation that the graph uses a better **scale**, is **easier to read** or **more clear.**		2	B1 B1 (dep)
37		**30**		B1
38		1, 3, 3 **or** 3, 3, 5	2	B1 – mode of 3 B1 – range of 2
39	1000 ÷ 45 (= 22) (remainder) Accept trial and improvement e.g. 20 × 45 = 900 21 × 45 = 945 22 × 45 = 990	**22**	2	M1 A1 Accept any complete and correct method **or** sight of ($)9.90 or 990 for 1 mark
40(a)		**impossible**	1	B1
40(b)		Arrow pointing to **middle** of line	1	B1
41	12 × 12 (= 144) and 6 × 6 (= 36) and "144" − "36" **or** 36 × 3	**108** (cm²)	2	M1 A1
42(a)		**80°** or **140°** Accept 40° **or** 70°	1	B1

Question Number	Working	Answer	Mark	Notes
42(b)		**9**	1	B1
42(b)	Explanation that shows <u>360 ÷ "40"</u>**or** <u>360 ÷ "70"</u>		1	B1 Accept follow through using half of answer to (a) Except where a = 40° or 70°
43		**2 × 0.1 = 0.2**		B1