



# **Mark Scheme (Results)**

## **Summer 2018**

**Pearson Edexcel Primary Lower Secondary  
Certificate (PLSC)  
Mathematics Year 6 (JMA01)**

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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.
- When examiners are in doubt regarding the application of the mark scheme to a candidate's response, the team leader must be consulted.
- Crossed out work should be marked UNLESS the candidate has replaced it with an alternative response.
- **Types of mark**
  - M marks: method marks
  - A marks: accuracy marks
  - B marks: unconditional accuracy marks (independent of M marks)
- **Abbreviations**
  - cao – correct answer only
  - ft – follow through
  - isw – ignore subsequent working
  - SC - special case
  - oe – or equivalent (and appropriate)
  - dep – dependent
  - indep – independent
  - eeoo – each error or omission

- **No working**

If no working is shown then correct answers normally score full marks  
If no working is shown then incorrect (even though nearly correct) answers score no marks.

- **With working**

If there is a wrong answer indicated on the answer line always check the working in the body of the script (and on any diagrams), and award any marks appropriate from the mark scheme.

If it is clear from the working that the "correct" answer has been obtained from incorrect working, award 0 marks.

Any case of suspected misread loses A (and B) marks on that part, but can gain the M marks.

If working is crossed out and still legible, then it should be given any appropriate marks, as long as it has not been replaced by alternative work.

If there is a choice of methods shown, then no marks should be awarded, unless the answer on the answer line makes clear the method that has been used.

If there is no answer on the answer line then check the working for an obvious answer.

- **Ignoring subsequent work**

It is appropriate to ignore subsequent work when the additional work does not change the answer in a way that is inappropriate for the question: eg. Incorrect cancelling of a fraction that would otherwise be correct.

It is not appropriate to ignore subsequent work when the additional work essentially makes the answer incorrect eg algebra.

Transcription errors occur when candidates present a correct answer in working, and write it incorrectly on the answer line; mark the correct answer.

- **Parts of questions**

Unless allowed by the mark scheme, the marks allocated to one part of the question CANNOT be awarded in another.

**Section A**

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

Question	Answer	Mark
1	D is correct because it is an Octagon A is incorrect because it is a Pentagon B is incorrect because it is a Heptagon C is incorrect because it is a Hexagon	1
2	B is correct because it is a $\frac{1}{3}$ of 48 A is incorrect because it is a $\frac{1}{4}$ of 48 C is incorrect because it is $\frac{1}{2}$ of 48 D is incorrect because it is $\frac{2}{3}$ of 48	1
3	B is correct because it is the most common letter (occurs 4 times) A is incorrect because it is the least common letter (occurs 2 times) C is correct because it is the least common letter (occurs 2 times) D is correct because it is the least common letter (occurs 2 times)	1
4	A is correct because it is the correct answer B is incorrect because it has taken the smaller digit from larger digit in column subtraction C is incorrect because it has not reduced 8 to 7 when 'exchange' took place D is incorrect because it has been added	1
5	B is correct because 7 boxes are needed A is incorrect because 6 has been rounded down (ignoring the extra ball) C is incorrect because it is adding 25 ball required and 'boxes of 4' D is incorrect because it has multiplied '25 balls' by 'boxes of 4'	1
6	D is correct because it is rounded to the nearest 100 A is incorrect because it is rounded to wrong nearest 100 (downwards) B is incorrect because it is rounded to the nearest 50 C is incorrect because it is rounded up to the next 10	1
7	A is correct because it is the correct area B is incorrect because it is more than the correct area C is incorrect because it counts $\frac{1}{2}$ squares as whole squares D is incorrect because it is more than the correct area	1
8	C is correct because $135^\circ$ is an obtuse angle A is incorrect because $45^\circ$ is an acute B is incorrect because $95^\circ$ although obtuse is almost a right angle D is incorrect because $225^\circ$ is a reflex angle	1
9	C is correct because the number is the hundredths A is incorrect because it is not a hundreds digit B is incorrect because it is not a tenths digit	1

	D is incorrect because it is not a tens digit	
10	C is correct because it is an even chance A is incorrect because it is not certain B is incorrect because it is not likely D is incorrect because it is not unlikely	1
11	B is correct because 58 is not a multiple of 7 A is incorrect because 42 is a multiple of 7 C is incorrect because 91 is a multiple of 7 D is incorrect because 105 is a multiple of 7	1
12	D is correct because it is the correct simplification A is incorrect because $5y - y \neq 5$ B is incorrect because all numbers and letter have been added as one C is incorrect because $4y$ should be positive not negative	1
13	B is correct because it is the correct shape A is incorrect because it is an incorrect shape C is incorrect because it is an incorrect shape D is incorrect because it is an incorrect shape	1
14	D is correct because number of students who chose it is 3 which is the lowest A is incorrect because number of students who chose it is 9; more than 3 B is incorrect because number of students who chose it is 4; more than 3 C is incorrect because number of students who chose it is 7; more than 3	1
15	D is correct because 0.75 is equivalent to $\frac{3}{4}$ A is incorrect because 0.25 is equivalent to $\frac{1}{4}$ B is incorrect because 0.34 uses the digits of the fraction incorrectly as a decimal C is incorrect because 0.43 uses the digits of the fraction incorrectly as a decimal	1
16	C is correct because the probability of even on a fair dice is $\frac{3}{6} = \frac{1}{2}$ A is incorrect because 0 is not equivalent to $\frac{3}{6}$ B is incorrect because $\frac{1}{3}$ is not equivalent to $\frac{3}{6}$ D is incorrect because $\frac{1}{1}$ is not equivalent to $\frac{3}{6}$	1
17	D is correct because $67.15 / 5 = 13.43$ A is incorrect because $13.43 + 5 = 18.43$ B is incorrect because the second carry figure has not been added C is incorrect because the decimal has been dealt with separately	1
18	A is correct because the mean is 23 B is incorrect because 24 is the median	1

	<p>C is incorrect because 25 is not the mean</p> <p>D is incorrect because 26 is the mode</p>	
19	<p>B is correct because <math>137\text{cm} = 1.37\text{ m } (\div 100)</math></p> <p>A is incorrect because <math>0.137 = 137 \div 1000</math></p> <p>C is incorrect because <math>13.7 = 137 \div 10</math></p> <p>D is incorrect because 1.037m is not the correct answer</p>	1
20	<p>A is correct because the lines are drawn up at <math>x=2</math> and across at <math>y=3</math></p> <p>B is incorrect as it is the point where the two lines cross; if the coordinates are read (y, x)</p> <p>C is incorrect as it is reading the line from the wrong axis</p> <p>D is incorrect as it is the point where the two lines cross</p>	1



## Section B

Question number	Working	Answer	Mark	Notes
<b>21</b> i)		350 ml	2	B1
ii)		650 ml		B1 allow ft 1000 – answer 21i)
<b>22</b> a		Four thousand three hundred and twenty seven	2	B1
b		74.36		B1
<b>23</b>		1,2, 3, 6, 9, 18	2	B2 all 6 correct (with no incorrect)  B1 at least 4 correct (with no more than one incorrect)
<b>24</b> i)		Correct tally for 16	2	B1
ii)		7		B1
<b>25</b>		8	1	B1
<b>26</b>	2, 2 and any other number NOT three 2's	Correctly completed spinner	1	B1
<b>27</b> a)		144.16	2	B1
b)		275.29		B1
<b>28</b> a i)		$3\frac{1}{3}$	4	B1
ii)		$2\frac{2}{5}$		B1
b i)		$\frac{25}{6}$		B1
ii)		$\frac{27}{8}$		B1
<b>29</b> i)		40	3	B1
ii)		65 correctly placed on the graph		B1
iii)				

		279 - 281		B1
<b>30</b> <b>i)</b>		0.8	2	B1
<b>ii)</b>		Correctly placed arrow at 0.2		B1
<b>31</b>		5.045 5.3 5.35 5.5	1	B1
<b>32</b> <b>i)</b>		Correctly placed triangle	2	B1 triangle B drawn correctly  B1 Triangle C drawn correctly or fit from incorrect B
<b>ii)</b>				
<b>33</b>		31, 37, 41, 43, 47, 53	2	B2 all 6 correct (with no incorrect)  B1 at least 4 correct (with no more than one incorrect)
<b>34</b>		18	1	B1
<b>35</b> <b>i)</b>		76	2	B1 (+/- 2mm)
<b>ii)</b>		12 cm line		B1 (+/- 2 mm)
<b>36</b>		16	1	B1
<b>37</b>		14	1	B1
<b>38</b> <b>i)</b>		96	2	B1
<b>ii)</b>		12		B1
<b>39</b>	180 – 90 – 33 (=57) <b>or</b> 33 + 90 + x (=180) <b>or</b> 180 - 90 / 2 (=45)	78°	2	M1 a correct start to find either 57° <b>or</b> 45° <b>NB:</b> sight of 123 or 147 is not enough A1 cao
<b>40</b>	$x^2$ <b>or</b> 7x <b>or</b> 3x + 4x <b>or</b> 12	$x^2 + 7x + 12$	2	M1 for finding any one correct term  A1 accept $x^2 + 3x + 4x + 12$
<b>41</b>		Any correctly labelled pair of parallel lines	1	B1
<b>42</b>		Correct frequency table	2	B2 fully correct and complete table  B1 relevant groups (no overlaps)

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