

# Mark Scheme (Results)

May 2022

Pearson Edexcel iPrimary Mathematics Year 6 Mathematics (JMA11) Paper 01

#### **Edexcel and BTEC Qualifications**

Edexcel and BTEC qualifications are awarded by Pearson, the UK's largest awarding body. We provide a wide range of qualifications including academic, vocational, occupational and specific programmes for employers. For further information visit our qualifications websites at <u>www.edexcel.com</u> or <u>www.btec.co.uk</u>. Alternatively, you can get in touch with us using the details on our contact us page at <u>www.edexcel.com/contactus</u>.

#### Pearson: helping people progress, everywhere

Pearson aspires to be the world's leading learning company. Our aim is to help everyone progress in their lives through education. We believe in every kind of learning, for all kinds of people, wherever they are in the world. We've been involved in education for over 150 years, and by working across 70 countries, in 100 languages, we have built an international reputation for our commitment to high standards and raising achievement through innovation in education. Find out more about how we can help you and your students at: www.pearson.com/uk

Summer 2022 Log number 69197 Publications Code JMA11\_01\_2206\_MS All the material in this publication is copyright © Pearson Education Ltd 2022

#### **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.

# iPrimary JMA11 2206 Mark Scheme

### Section A

Question number	Answer	Mark
1	The only correct answer is A – 216	1
	B is not correct because it subtracts smallest digit from largest	
	C is not correct because it is addition without carrying	
	D is not correct because it is addition	

Question	Answer	Mark
number		
2	The only correct answer is B - Reflex	1
	A is not correct because it is not acute	
	C is not correct because it is not a right angle	
	D is not correct because it is not obtuse	

Question	Answer	Mark
number		
3	The only correct answer is C - 42	1
	A is not correct because $48 - 6 \neq 26$	
	B is not correct because $48 - 6 \neq 38$	
	D is not correct because $48 - 6 \neq 60$	

Question number	Answer	Mark
4	The only correct answer is A – 12	1
	B is not correct because 24 if <sup>1</sup> / <sub>2</sub> of 48	
	C is not correct because 36 is <sup>3</sup> / <sub>4</sub> of 48	
	D is not correct because 192 is $48 \times 4$	

Question number	Answer	Mark
5	The only correct answer is C - 8	1
	A is not correct because 6 is not the mean	
	B is not correct because 7mis the median	
	D is not correct because 10 is the range (or mode)	

Question number	Answer	Mark
6	The only correct answer is $C - 22$ A is not correct because $6 + 5 = 11$ (1/2 the perimeter)	1
	B is not correct because 17 is incomplete (on side of 5cm is missing)	
	D is not correct because $6 \ge 5 = 30$	

Question number	Answer	Mark
7	The only correct answer is B - 19	1
	A is not correct because 15 is not prime	
	C is not correct because 36 is not prime	
	D is not correct because 51 is not prime	

Question number	Answer	Mark
8	The only correct answer is C – 346cm	1
	A is not correct because 346mm is equivalent to 0.346m	
	B is not correct because 34.6cm is equivalent to 0.346m	
	D is not correct because 3460cm is equivalent to 34.6m	

Question	Answer	Mark
number		
9	The only correct answer is B - 8	1
	A is not correct because 6 is 14 subtract 2 then half	
	C is not correct because 9 is 14 halved then add 2	
	D is not correct because 24 is 14 subtract 2 then double	

Question number	Answer	Mark
10	C 8	1
	The only correct answer is C - 8	
	A is not correct because 2cm is half of the radius	
	B is not correct because 4cm is the radius	
	D is not correct because 16cm is radius x 4	

Question number	Answer	Mark
11	B - 30%	1
	The only correct answer is B – 30 %	
	A is not correct because 20% is the amount of butter	
	C is not correct because 50% is the amount of flour	
	D is not correct because 70% is the total of sugar and flour	

Question	Answer	Mark
number		
12	The only correct answer is A – letter C	1
	B is not correct because F has no lines of symmetry	
	C is not correct because L has no lines of symmetry	
	D is not correct because R has no lines of symmetry	

Question	Answer	Mark
number		
13	The only correct answer is B - 42	1
	A is not correct because $40 = 8 \ge 5$	
	C is not correct because $45 = 9 \times 5$	
	D is not correct because $420 = 84 \times 5$	

Question number	Answer	Mark
14	The only correct answer is A – 127 000	1
	B is not correct because 127 400 is incorrect rounding down to the nearest hundred	
	C is not correct because 127 500 is rounded to the nearest hundred	
	D is not correct because 128 000 is incorrectly rounded up to the nearest thousand	

Question number	Answer	Mark
15	The only correct answer is B - \$11.31	1
	A is not correct because \$8.69 is the cost of a drink and 2 cakes	
	C is not correct because \$12.41 is incorrect decomposition method (changing \$20.00 to $$2 \ ^{1}0. \ ^{1}0 \ ^{1}0$ )	
	D is not correct because \$13.81 is the change from buying 2 drinks and a cake	

Question number	Answer	Mark
16	<b>The only correct answer is D</b> $3x + y$	1
	A is not correct because $x + y$ is $2x - x + 3y - 2y$	
	B is not correct because $3x + 5y$ is $2x + x + 3y + 2y$	
	C is not correct because $2x + y$ doesn't use the final x	

Question number	Answer	Mark
17	The only correct answer is C – 288m	1
	A is not correct because 72m is $\frac{1}{5}$ of 360m	
	B is not correct because 216m is $\frac{3}{5}$ of 360m	
	D is not correct because 450 is $\frac{5}{4}$ of 360m	

Question number	Answer	Mark
18	The only correct answer is B -	1
	A is not correct because A is an equilateral	
	C is not correct because C is a right-angle triangle	
	D is not correct because D is a scalene triangle	

Question number	Answer	Mark
19	The only correct answer is D - $\frac{5}{7}$	1
	A is not correct because $\frac{2}{7}$ is days with more than 10cm of rainfall	
	B is not correct because $\frac{7}{2}$ is the incorrect fraction for more than 10cm	
	C is not correct because $\frac{7}{5}$ is the incorrect fraction for less than 10cm	

Question number	Answer	Mark
20	D $22\frac{5}{6}$	1
	The only correct answer is D - $22\frac{5}{6}$	
	A is not correct because $22\frac{2}{17}$ is incorrect remainder notation from division calculation	
	B is not correct because $22\frac{1}{6}$ is incorrect use of $\frac{1}{6}$ rather than $\frac{5}{6}$	
	C is not correct because $22 \frac{5}{17}$ is incorrect remainder notation from division calculation	

## Section B

Question number	Answer	Notes	Mark
21a	11:40 or 23:40	B1	1

Question number	Answer	Notes	Mark
21b	12:15 or 00:15	B1	1

Question	Answer	Notes	Mark
number			
22	Correct Tally Chart	B3 fully correct	3
	Sport Tally Total		
		B2	
	Swimming 4	for at least 3 fully correct rows	
	Running 3	or	
	Hockey 1	a fully correct tally chart without	
		labels	
		B1	
		All tallies <b>or</b> frequencies	
		(accept 1 error or omission)	
		or	
		1 fully correct row	
		Note:	
		Do not accept a graph	
		Chart titles along the side and	
		sports along the top is acceptable	

Question number	Answer	Notes	Mark
23	Correct reflection	B1	1

Question number	Answer	Notes	Mark
24	92	B1	1

Question number	Answer	Notes	Mark
25	25% 0.43 6/10 0.7	B1 Accept oe answers	1

Question number	Answer	Notes	Mark
26	Alison 27 Sister 18	M1 45 ÷ "3+2" (=9) OR Alison = 27 OR sister = 18 OR Alison = 18 <b>AND</b> sister = 27 A1	2

Question number	Answer	Notes	Mark
27a	158.91	B1	1

Question number	Answer	Notes	Mark
27b	258.11	B1	1

Question number	Answer	Notes	Mark
28a	143	B1	1

Question number	Answer	Notes	Mark
28b	47	B1 Accept answer in the range 45 – 49	1

Question number	Answer	Notes	Mark
29a	$\frac{1}{2}$ AND $\frac{1}{4}$	B1	1

Question number	Answer	Notes	Mark
29bi	6	B1	1

Question number	Answer	Notes	Mark
29bii	e.g. <sup>3</sup> / <sub>4</sub> 9/12 15/20 oe or 3/1 36/12 15/5 oe or 3/6 6/12 15/30 oe or 3/3 12/12 15/15 oe or 3/2 18/12 15/10 oe	<ul><li>B2 for three different equivalent fractions</li><li>B1 for at least 1 correct pair of fractions</li></ul>	2

Question number	Answer	Notes	Mark
29c	$\frac{14}{15}$ oe	B1	1

Question number	Answer	Notes	Mark
29d	$\frac{6}{12}$ or $\frac{1}{2}$ oe	B1	1

Question number	Answer	Notes	Mark
30a	19 22	B1	1

Question number	Answer	Notes	Mark
30b	76	B1	1

Question number	Answer	Notes	Mark
30c	20a + b	M1 for $12a - 3b$ OR $8a + 4b$ OR 20a OR b Al Accept $b + 20a$	2

Question number	Answer	Notes	Mark
30d	5	B1	1

Question number	Answer	Notes	Mark
31	42	M1 fully correct method e.g. 7 × 2 × 3 (= 42) or "6" ×7 or "14" ×3 or "21" × 2 A1 cao	2

Question number	Answer	Notes	Mark
32	227	M1 for a correct first step to solving the division Eg: Short division $16 \boxed{3 \ 6^{4}3} 2$ Long division $16 \boxed{3 \ 6^{5}3 \ 2}$ $\underline{3 \ 2} \\ 4 \ 3 \\ 3 \\ 5 \\ 5 \\ 5 \\ 5 \\ 5 \\ 5 \\ 5 \\ 5 \\$	2
		A1 (DEP) cao	

Question number	Answer	otes				Mark
33	58 328	1 for a co O place v lculation • 50 720 A	mplete m alue error error) <b>ND</b> 7 60	ethod s (allo 8 seer	with ow one	2
		× 2000	500	30	6	
		20 40000	10000	600	120	
		3 6000	1500	90	18	
		l Dep ca	10			

Question number	Answer	Notes	Mark
34a	198	B1	1

Question number	Answer	Notes	Mark
34b	25	B1	1

Question number	Answer	Notes	Mark
35a	56	B1	1

Question number	Answer	Notes	Mark
35b	160	B1	1

Question number	Answer	Notes	Mark
36	4	M1 Blue = 6 or Green = 6 or Red + Yellow + Orange = 12 or Orange = $1/6$ or Red = $1/6$ or Yellow = $1/6$ or $24 \div 2 \div 3$ or "12" $\div 3$ A1 cao	2

Question	Answer	Notes	Mark
number			
37	4	M1 For a method to find one relevant area e.g. 20 x15 (=300) Or "300" x 3 (=900) Or "900" x 20 (=18000) Or 100 x 50 (= 5000) M1 "18000" ÷ "5000" (=3.6) A1 cao	3
	ALT Scheme: 4	M1 $100 \div 20 (= 5)$ or $50 \div 15 (=3(.3))$ or $20 \ge 3 (= 60)$ or $60 (cm) \ge 45 (cm)$ for one face covering M1 1 sheet = "5" \empi "3" (=15) or 1 sheet = 5 coverings or $20 \div "5"$ or "60" $\div$ "15" A1 cao	
	Alternative answer: 5	M1 $100 \div 15 (= 6(.6))$ or $50 \div 20 (= 2(.5))$ or $20 \ge 3 (= 60)$ or $60 (\text{cm}) \ge 45 (\text{cm})$ for one face covering M1 1 sheet = "6" \empi "2" (=12) or 1 sheet = 4 coverings or $20 \div "4"$ or "60" $\div$ "12" A1 ca	

Pearson Education Limited. Registered company number 872828 with its registered office at 80 Strand, London, WC2R 0RL, United Kingdom