Mark Scheme (Results)

January 2018

Pearson Edexcel Level 1 Award
In Number and Measure (ANM10)
Paper 1A + 1B

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 www.edexcel.com or www.btec.co.uk. Alternatively, you can get in touch with us using the details on our contact us page at www.edexcel.com/contactus.

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

Contents

NOTES ON MARKING PRINCIPLES

1   Types of mark
M marks: method marks
A marks: accuracy marks
B marks: unconditional accuracy marks (independent of M marks)

2   Abbreviations

cao – correct answer only	ft – follow through
isw – ignore subsequent working	SC: special case
oe – or equivalent (and appropriate)	dep – dependent
indep - independent	

3   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.

4   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If working is crossed out and still legible, then it should be given any appropriate marks, as long as it has not been replaced by alternative work.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 it is clear from the working that the "correct" answer has been obtained from incorrect working, award 0 marks
If there is no answer on the answer line then check the working for an obvious answer.
Any case of suspected misread loses A (and B) marks on that part, but can gain the M marks. Discuss each of these situations with your Team Leader.
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.

5   Follow through marks
Follow through marks which involve a single stage calculation can be awarded without working since you can check the answer yourself, but if ambiguous do not award.
Follow through marks which involve more than one stage of calculation can only be awarded on sight of the relevant working, even if it appears obvious that there is only one way you could get the answer given.

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

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

8   Use of ranges for answers
If an answer is within a range this is inclusive, unless otherwise stated.

Section A

PAPER: ANM10_1A				
Question	Working	Answer	Mark	Notes
1 (a)		248	1	B1 cao
(b)		Arrow pointing at 534	1	B1 cao
2 (a)		Any multiple of 21	1	B1 for any multiple of 21 eg 21, 42, 63,..., 210
(b)		1, 2, 3, 4, 6, 12	1	B1 for any one (or more) factor of 36 and 60
(c)		700	1	B1 cao
3 (a)(i)		10.06	1	B1 10.06
(ii)		5.4	1	B1 5.4
(iii)		3.42	1	B1 3.42
(b)		4 hundredths	1	B1 4/100 or hundredths
4	$3 \times 1.17 =$ £3.51 $2 \times 0.95 =$ £1.90 $1 \times 2.45 =$ £2.45 £7.86 £10 − £7.86 = £2.14	2.14	4	M1 for method to work out one of 3×1.17 (= 3.51)oe or $2 \times 95p$ (= 190(p) or 1.9(0)) M1 for adding the 3 items or 7.86 seen as a total M1 for method to subtract their total from £10 A1 cao SC B2 for 5.43

PAPER: ANM10_1A				
Question	Working	Answer	Mark	Notes
5 (a)		0.2	1	B1 cao
(b)	$(320 \div 8) \times 3$	120	2	M1 for $320 \div 8$ (= 40) or 320×3 (= 960) oe A1 cao
(c)		$\dfrac{9}{11}$	1	B1 oe fraction
(d)	eg 0.15×280, $28 + 14$, etc	42	2	M1 for 0.15×280 oe or for an answer of 322 or 238 A1 cao
6 (a)		57.5(0)	1	B1 cao
(b)		60	2	M1 for $69 \div 1.15$ or a total in pounds that amounts to 60 **or** a total in euros that amounts to 69 eg $57.50 + 11.50 = 69$ oe A1 cao
(c)	eg $115 + 57.50 + 11.50 + 2 \times 2.30$ or 1.15×164	188.6(0)	2	M1 for 164×1.15 or $115 + 57.50 + 11.50 + 2 \times 2.30$ oe A1 cao
7	$12 \times 23 + 4.5 \times 12$ $= 276 + 54$ $= 330$	330	3	M1 for method to find correctly the area of one rectangle eg 12×23 (= 276) or 4.5×12 (= 54) M1 for a complete method that should result in the correct answer A1 cao

PAPER: ANM10_1A				
Question	Working	Answer	Mark	Notes
8	1.25 ÷ 7 (= 0.17(857...)) or 125 ÷ 7 (= 17.(857...)	18	2	M1 for 1.25 ÷ 7(= 0.17(857...)) **or** 125 ÷ 7 (= 17.(857...)) **or** for an answer of 0.18 (p) A1 for 18 cao
9 (a)		20 15 or 8.15 pm	2	B2 for fully correct time that incorporates pm, eg 8.15pm **or** in 24 hour format eg 20 15 **or** a quarter past eight in the evening (B1 for 8 15am **or** quarter past eight in the morning **or** a correct time with no reference to evening)
(b)	2 h 35 m 2 h 35 m <u>1 h 40 m</u> or <u>1 h 40 m</u> 3 h 75 m 4 h 15 m or 155 + 100 = 255	255	3	M1 for (2 + 1) hours **and** (35 + 40) minutes **or** for (2 × 60 + 35 (= 155)) **or** (1 × 60 + 40 (= 100)) **or** for 3 hours 75 mins **or** for 4 hours 15 mins [3 hrs 75 mins or 4 hrs 15 mins must have units] M1 for (2 + 1) × 60 + (35 + 40) minutes **or** for (2 × 60 + 35) + (1 × 60 + 40) **or** for (4 × 60 + 15) A1 cao

Question		Working	Answer	Mark	Notes
10	(a)(i)		grams	2	B1 for g or grams or mg or milligrams or kg or kilograms
	(ii)		centimetres or millimetres or metres	1	B1 or cm or mm or m
	(b)		3500		B1 cao
	(c)	4 m 63 cm 6 m 5 cm <u>1 m 42 cm</u> + <u>2 m 70 cm</u> – 6 m 5 cm 3 m 35 cm **Or** 463 + 142 – 270 or **Or** 4.63 + 1.42 – 2.7(0)	3 m 35 cm or 3.35 m or 335 cm	2	M1 for method to show 4 + 1 – 2 or 63 + 42 – 70 or a total including 35 cm or for method to subtract 2 m 70 cm from their total with decomposition to allow subtraction of 70 or for an answer of 3 35 **Or** M1 for writing all measurements in cm and method to add 463 and 142 or sight of total of 605 or method to subtract 270 from their total with decomposition to allow subtraction of the 7 or for an answer of 335 **Or** M1 for writing all measurements in m and intention to add 4.63 and 1.42 or sight of total of 6.05 or intention to subtract 2.7(0) from their total with decomposition to allow subtraction of the 7 or for an answer of 3.35 A1 for 3 m 35 cm or 3.35 m or 335 cm SCB1 for 8 m 75 cm or 8.75 m or 875 cm

PAPER: ANM10_1A				
Question	Working	Answer	Mark	Notes
11 (a)		0924	1	B1 cao
(b)		0720	1	B1 cao
(c)		33	1	B1 cao
12 (a)		138 – 142	1	B1 any answer in range
(b)		A line 7 cm long	1	B1 allow a line 6.8 cm to 7.2 cm
13	7.2 + 3.7 + 7.2 + 3.7	21.8	2	M1 for a fully correct method to find the perimeter A1 cao
14	_5820 5357 463 463 × 0.13 = 60.19 60.19 + 23.40 = 83.59 **Or** 5820 × 0.13 – 5357 × 0.13 = 60.19 60.19 + 23.40 = 83.59	83.59	4	M1 for 5820 – 5357 (= 463) M1 for "463" × 0.13 (= 60.19)oe even if "463" is 5820 + 5357 M1 for adding their cost of units and the quarterly charge A1 for 83.59 **Or** M1 for 5820 × 0.13 (= 756.6(0))oe or 5357 × 0.13 (= 696.41)oe M1 for "756.6" – "696.41" (= 60.19) M1 for adding their cost of units and the quarterly charge A1 for 83.59 SCB2 for 1476.41

Section B

PAPER: ANM10_1B				
Question	**Working**	**Answer**	**Mark**	**Notes**
1 (a)	92.0 43.6 − 48.4	48.4	2	M1 for correctly putting numbers in columns with method to subtract the tenths – may be indicated by 4 in the tenths column or crossing through of the 2 in 92 and a 1 by the side of the 0 in 92.0 A1 cao
(b)	354 7 × 24₃7₂8	2478	2	M1 for complete structured method to multiply by 7, condone one multiplication error or correct multiplications for box method condoning one multiplication error or attempt to add 7 lots of 354 A1 cao

Box method:

3	5	4	×
2 / 1	3 / 5	2 / 8	7
24	7	8	

$7 \times 300 = 2100$
$7 \times \ 50 = \ 350$
$7 \times \ \ 4 = \ \ 28$ +
$\qquad\qquad 2478$

9

PAPER: ANM10_1B					
Question		Working	Answer	Mark	Notes
2	(a)		54	1	B1 cao
	(b)		640	1	B1 cao
3	(a)		$\dfrac{5}{12}$	1	B1 oe
	(b)		$\dfrac{2}{3}$	1	B1 cao
	(c)		$\dfrac{7}{15}$	1	B1 oe
	(d)		$\dfrac{8}{10}$	1	B1 or any fraction equivalent to $\dfrac{4}{5}$ eg $\dfrac{8}{10},\dfrac{16}{20},\dfrac{80}{100}$
	(e)		$\dfrac{17}{100}$	1	B1 oe (NB numerator & denominator must be whole numbers)

	PAPER: ANM10_1B				
Question		**Working**	**Answer**	**Mark**	**Notes**
4	(a)		kiwi completed correctly	1	B1 cao
	(b)		orange & grape	1	B1 cao
	(c)	2 + 3 + 7 + 5 + 3 + 4	24	2	M1 for evidence of adding frequencies or 20 A1 ft from bar chart
5	(a)	71, 541, 638, 682, 782	Correct order	1	B1 cao
	(b)	$\dfrac{1}{12}, \dfrac{1}{4}, \dfrac{3}{8}, \dfrac{3}{5}$	Correct order	1	B1 cao
	(c)	11%, 14%, 21%, 29%, 47%	Correct order	1	B1 (allow without %)
	(d)	48p, 96p, £2.81, 326p, £4.06	Correct order	1	B1 (ignore units)
6			C or £30	1	B1 cao
7		7 × 3 × 2	42	2	M1 for 7 × 3 × 2 oe A1 cao
8	(a)		Friday	1	B1 allow F, Fri, Friday
	(b)		2nd June	2	M1 for filling in spaces or other method to get to May 31st or for an answer of 3rd June or 2nd May A1 for (Saturday) 2nd June (2018)

PAPER: ANM10_1B					
Question		Working	Answer	Mark	Notes
9	(a)		7	1	B1 cao
	(b)		18 & 7	1	B1 cao
10	(a)		4	1	B1 4 or + 4
	(b)		−2	1	B1 cao
	(c)		−4	1	B1 cao