1MA1 Practice papers Set 2: Paper 1F (Regular) mark scheme – Version 1.0					
Question		**Working**	**Answer**	**Mark**	**Notes**
1.			7.8	B1	cao
2.			7	B1	cao
3.			7.84	B1	cao
4.			25	B1	cao
5.	(a)		2, 3, 6, 7, 8	2	B2 for 2, 3, 6, 7, 8 (B1 for any 3 or 4 correct, no extras **or** 2, 3, 6, 7, 8 seen with at most one extra)
	(b)		3,8	1	B1 cao
6.	(a)(i)		23	2	B1 cao
	(ii)		284		B1 cao
	(b(i)		71 + 95 or 91 + 75	2	B1 for showing addition of 71 and 95 **or** 91 and 75
	(ii)		166		B1ft for the sum of their two numbers given provided they used only the digits 5, 1, 7 and 9 exactly once each
7.	(a)		(4, 2)	1	B1 cao
	(b)		(−3, 0) plotted	1	B1 cao

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Question		**Working**	**Answer**	**Mark**	**Notes**
8.	(a)		Correct diagram	1	B1 for correct diagram, accept squares drawn at either end shaded or unshaded. Ignore internal lines.
	(b)		17, 21	1	B1 cao
	(c)		41	1	B1 cao
9.			3 and 12	2	M1 for using two numbers that are both factors of 24 **or** using two numbers that sum to 15 and one is a factor of 24 A1 for 12 and 3
10.			Triangle drawn	2	M1 for a triangle with at least one side of length 5 cm (± 0.2) or at least one angle 60° (±2°) A1 for a correct triangle
11.		14 + 19 = 33 57 – 29 = 28 (or -28) 9 × 4 = 36	the **product** of 9 and 4 has the **greatest** value	3	M1 for evidence of one correct operation e.g. 14 + 19 **or** 33 **OR** 57 – 29 **or** 28 **or** 29 – 57 **or** –28 **OR** 9 × 4 **or** 36 A1 33, 28 (or –28) **and** 36 C1 (dep on M1) ft for a statement identifying the correct calculation (not the biggest answer) from three calculated values

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Question		**Working**	**Answer**	**Mark**	**Notes**
12.	(a)		08 12	1	B1 cao
	(b)		6	2	M1 for evidence of counting on 15 minutes from 09 20, could be shown with table A1 cao
	(c)		17 35	1	B1 cao
13.	(a)		60	2	M1 for 300 ÷ 5 or 3 ÷ 5 (or equivalent) A1 cao
	(b)		25p or £0.25	3	M1 for 100 ÷ 5 (= 20) M1 for "20" ÷ 80 or "20" × 100 ÷ 80 A1 for 25p or £0.25 **OR** M1 for 80 × 5 (= 400) M1 for 100 ÷ "400" or 100 × 100 ÷ "400" A1 for 25p or £0.25 **OR** M1 for 100 ÷ 80 (= 1.25) M1 for "1.25" ÷ 5 or "1.25" × 100 ÷ 5 A1 for 25p or £0.25

1MA1 Practice papers Set 2: Paper 1F (Regular) mark scheme – Version 1.0					
Question		**Working**	**Answer**	**Mark**	**Notes**
14.			5.7	3	M1 for $20 - 8.6$ (=11.4) M1 for '11.4' ÷ 2 A1 cao **or** M1 for $2x + 8.6 = 20$ (or equivalent) M1 for clear intention to subtract 8.6 from each side A1 cao
15.	(a)		5	1	B1 cao
	(b)		evens	1	B1 cao
	(c)		$\frac{2}{6}$	2	M1 for $\frac{a}{6}$ where $a < 6$ **or** $\frac{2}{b}$ where $b > 2$ A1 for $\frac{2}{6}$ (or equivalent)

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Question		**Working**	**Answer**	**Mark**	**Notes**
16.		1195 4780 + 5975 2 3 9 0 4 0 6 1 8 2 5 1 0 1 5 4 5 5 9 7 5 200 30 9 20 4000 600 180 5 1000 150 45 4000 + 1000 + 600 + 150 + 180 + 45 = 5975	Kirsty's Plants with correct calculations	5	M1 for complete method with relative place value correct. Condone 1 multiplication error, addition not necessary. M1 (dep) for addition of all the appropriate elements of the calculation or digits 5975 M1 for a complete method to find 120% of £52.50 A1 for 59.75 and 63(.00) C1 (dep on M2) for correct conclusion for their figures **OR** M1 for the start of a method to divide £52.50 by 25, eg 2 rem 2 M1 for a complete method to divide £52.50 by 25, condone one arithmetic error, or digits 21 M1 for a complete method to find 120% of '£2.10' A1 for 2.52 C1 (dep on M2) for correct conclusion for their figures **OR** M1 for a complete method to find 120% of £52.50 M1 for the start of a method to divide '63' by 25, e.g.. 2 rem 13 M1 for a complete method to divide '63' by 25, condone one arithmetic error, or digits 252 A1 for 2.52 C1 (dep on M2) for correct conclusion for their figures

1MA1 Practice papers Set 2: Paper 1F (Regular) mark scheme – Version 1.0					
Question		**Working**	**Answer**	**Mark**	**Notes**
17.	(a)		8	1	B1 for 8 (.00)
	(b)		550	4	M1 for 600 – 200 (= 400) M1 for correct method to convert '$400' to £ M1 (dep on the previous M1) for 800 – '$400' in £s A1 for value in the range 540 –560 **OR** M1 for correct method to convert $600 **and** $200 to pounds M1 for '375'–'125' M1 (dep on the previous M1) 800 –'250' A1 for a value in the range 540-560 **OR** M1 for correct method to convert £800 to dollars M1 for '1280' + 200 – 600 M1 (dep on the previous M1) for attempt to convert '$880' back to £ A1 for value in the range 540 – 560

1MA1 Practice papers Set 2: Paper 1F (Regular) mark scheme – Version 1.0					
Question		**Working**	**Answer**	**Mark**	**Notes**
18.		1.96 × 2.25 = 4.41 **OR** 4.23 ÷ 9 = 0.47 1.96 ÷ 4 = 0.49 **OR** 4.23 × 4 = 16.92 1.96 × 9 = 17.64 **OR** 4.23 ÷ 9 = 0.47 0.47 × 4 = 1.88 **OR** 1.96 ÷ 4 = 0.49 0.49 × 9 = 4.41 **OR** 9 ÷ 4.23 = 2.12 4 ÷ 1.96 = 2.04	Pack of 9	3	M2 for a fully correct method to enable a conclusion eg 1.96 × 2¼ **OR** M1 for 4.23 ÷ 9 or 423 ÷ 9 **or** 0.47 seen **or** 47 seen M1 for 1.96 ÷ 4 or 196 ÷ 4 or 0.49 seen or 49 seen **OR** M1 for 4.23 × 4 **or** 423 × 4 **or** 16.92 seen **or** 1692 seen M1 for 1.96 × 9 **or** 196 × 9 **or** 17.64 seen **or** 1764 seen **OR** M1 for 4.23 ÷ 9 **or** 423 ÷ 9 **or** 0.47 seen **or** 47 seen M1 for 0.47 × 4 **or** 47 × 4 **or** 1.88 seen **or** 188 seen **OR** M1 for 1.96 ÷ 4 **or** 196 ÷ 4 **or** 0.49 seen **or** 49 seen M1 for 0.49 × 9 **or** 49 × 9 **or** 4.41 seen **or** 441 seen **OR** M1 for 9 ÷ 4.23 **or** 2.12(...) seen **or** 2.13 seen M1 for 4 ÷ 1.96 **or** 2.04(...) seen A1 for Pack of 9 and fully correct calculations **NOTE:** B0 for an answer of 9 not supported by working.
19.	(a)			1	M1 90 ÷ 1.5 (=60)
				1	M1 240 ÷ 60 (= 4 hours)
			13:30	1	A1
	(b)		Assumption and affect	1	C1 e.g. assumed constant speed – if not constant than could arrive earlier or later. Assumed no stops – if stop then will arrive later

1MA1 Practice papers Set 2: Paper 1F (Regular) mark scheme – Version 1.0					
Question		**Working**	**Answer**	**Mark**	**Notes**
20.			Rotation Centre (0,0) 90° clockwise	3	B1 for rotation B1 for 90° clockwise or 270° anticlockwise B1 for (0, 0) or *O* or origin NB: a combination of transformations gets B0
21.		(7 × 2 + 2 × 5) × 200 = 4800 4800 × 8	38 400 g	5	M1 for 7 × 2 or 2 × 5 or 7 × 7 or 5 × 5 or 2 × 2 M1 for '7 × 2' + '2 × 5' (or equivalent) or '7 × 7' – '5 × 5' M1(dep on first M) for '24' × 200 or '0.0024' × 2 M1 for '4800' × 8 or '0.0048' × 8 000 000 or '0.0048' × 8000 A1 for 38 400g or 38.4kg (SC B3 for any answer including digits 384)

<table>
<tr><th colspan="5">1MA1 Practice papers Set 2: Paper 1F (Regular) mark scheme – Version 1.0</th></tr>
<tr><th colspan="2">Question</th><th>Working</th><th>Answer</th><th>Mark</th><th>Notes</th></tr>
<tr>
<td>22.</td>
<td>(a)</td>
<td>$y = 3x + 5$
<table>
<tr><td>x</td><td>–2</td><td>–1</td><td>0</td><td>1</td><td>2</td><td>3</td></tr>
<tr><td>y</td><td>–1</td><td>2</td><td>5</td><td>8</td><td>11</td><td>14</td></tr>
</table>
</td>
<td>Correct line from (–2, –1) to (3, 14)</td>
<td>3</td>
<td>(Table of values / calculation of values)
M1 for at least 2 correct attempts to find points by substituting values of x.

M1 ft for plotting at least 2 of their points (any points plotted from their table must be correctly plotted)

A1 for correct line between $x = –2$ and $x = 3$

(No table of values)
M1 for at least 2 correct points with no more than 2 incorrect points

M1 for at least 2 correct points (and no incorrect points) plotted

OR line segment of $y = 3x + 5$ drawn
A1 for correct line between $x = –2$ and $x = 3$

(Use of $y = mx + c$)
M1 for line drawn with gradient of 3
OR line drawn with a y intercept of 5

M1 for line drawn with gradient of 3
AND line drawn with a y intercept of 5

A1 for correct line between $x = –2$ and $x = 3$

SC : B2 for the correct line from $x = 0$ to $x = 3$</td>
</tr>
</table>

1MA1 Practice papers Set 2: Paper 1F (Regular) mark scheme – Version 1.0					
Question		**Working**	**Answer**	**Mark**	**Notes**
	(b)	$3 \times 6 + 5 = 18 + 5$ **Or** $24 - 5 = 19$ $19 \div 3$	Correct explanation	2	M1 $3 \times 6 + 5$ **or** "18" + 5 **or** (6, 23) C1 for 23 seen and correct conclusion **or** M1 $24 - 5$ or "19" $\div 3$ C1 for $\frac{19}{3}$ (or equivalent) **or** 6.3... seen and correct conclusion
23.	(a)	$1 - 0.37$	0.63	1	B1 for 0.63 (or equivalent)
	(b)	0.37×500	185	2	M1 for 0.37×500 A1 cao SC B1 for 200

1MA1 Practice papers Set 2: Paper 1F (Regular) mark scheme – Version 1.0					
Question		**Working**	**Answer**	**Mark**	**Notes**
24.		$4000 - (\frac{10}{100} \times 4000) = 3600$ $3600 - (\frac{10}{100} \times 3600)$	3240	3	M1 for $4000 - \frac{10}{100}$ or 0.9×4000 (or equivalent) or 3600 or 400 or 3200 or 800 seen M1 (dep) 10 "3600" $- \frac{10}{100} \times$ "3600" or "3600" $\times$ 0.9 (or equivalent) A1 cao **or** M2 for 29.04000×0.9^2 (M1 for 4000×0.9^3) A1 cao [SC: B2 for an answer of £4840, with or without working]
25.		0.38×10^{-1}, 3800×10^{-4}, 0.038×10^2, 380	Correct order	2	M1 changing any one correctly or at least 3 in the correct order (ignoring one) or reverse order A1 for correct order (accept any form)

1MA1 Practice papers Set 2: Paper 1F (Regular) mark scheme – Version 1.0					
Question		**Working**	**Answer**	**Mark**	**Notes**
26.			48	5	M1 for 8 – 2 (= 6) M1 (indep) for $x^2 + 8^2$ (provided $x \leq 8$) M1 (dep on previous M1) for $\sqrt{(x^2 + 8^2)}$ or $\sqrt{100}$ M1 (dep on M2) for 4 × 2 + 4 × "10" A1 cao

National performance data from Results Plus

	Source of questions								Mean scores of students achieving grade:				
Qu No	Spec	Paper	Session	Qn	Topic	Max score	Mean % all	ALL	C	D	E	F	G
1				New	Conversions	1	No data available						
2				New	Percentages	1	No data available						
3				New	Decimals	1	No data available						
4				New	Index laws	1	No data available						
5	5MM1	1F	1206	Q09	Venn diagrams	3	79	2.36	2.68	2.55	2.43	2.20	1.96
6	1MA0	1F	1311	Q05	Substitute into expressions	4	72	2.88	3.26	3.00	2.85	2.69	2.45
7	5MM1	1F	1406	Q09	Coordinates in 2D	2	92	1.83	1.96	1.90	1.84	1.82	1.63
8	2540	1F	0811	Q08	Pattern sequences	3	77	2.32	2.63	2.41	2.21	1.96	1.53
9	5MM1	1F	1506	Q09	Factors, multiples, primes	2	77	1.53	1.94	1.79	1.58	1.27	0.80
10	1MA0	1F	1311	Q21	Constructions	2	80	1.59	1.87	1.74	1.57	1.37	1.13
11	5MM1	1F	1306	Q12	Four operations	3	65	1.95	2.57	2.39	2.06	1.61	1.06
12	1MA0	1F	1506	Q07	Time calculations	4	49	1.96	2.87	2.44	2.05	1.60	1.18
13	1MA0	1F	1406	Q14	Money calculations	5	35	1.73	2.99	2.36	1.86	1.34	0.86
14	5MM1	1F	1406	Q12	Decimals	3	52	1.56	2.65	2.14	1.67	0.73	0.19
15	1MA0	1F	1411	Q10	Probability	4	59	2.36	2.82	2.53	2.28	1.98	1.67
16	1MA0	1H	1506	Q04	Percentages - VAT	5	79	3.96	4.04	2.97	1.52		
17	1MA0	1H	1303	Q06	Conversion graphs	5	62	3.11	3.06	2.11	1.30		
18	1MA0	1F	1206	Q19	Ratio	3	27	0.81	1.73	1.00	0.51	0.20	0.08
19				New	Compound measures	4	No data available						
20	5MM1	1F	1211	Q27	Transformations	3	32	0.96	2.32	1.45	0.81	0.33	0.33
21	1380	1F	1106	Q29	Compound measures	5	10	0.52	1.25	0.58	0.27	0.13	0.07
22	5MM1	1H	1306	Q09	Graphs of linear functions	5	79	3.94	3.67	2.46	1.00	0.89	1.67
23	5MM1	1H	1211	Q09	Probability	3	71	2.12	1.80	1.33	2.00		
24	1380	1H	1006	Q19	Compound interest	3	70	2.09	1.59	0.96	0.58		
25	1MA0	1H	1211	Q20	Standard form	2	60	1.20	1.20	0.73	0.46		
26	1MA0	1H	1511	Q13	Derive expressions	3	8	0.23	0.22	0.08	0.05		
						80							