

Paper 1MA1: 1F				
Question	Working	Answer	Mark	Notes
6		$L = 5a + 3$	M1	for expression $a - 1 + a + a + a + a + 4$ or $L =$ an expression in a
Q1			M1	for $5a + 3$ or $L = a + a + a - 1 + a + a + 4$ oe
			A1	for $L = 5a + 3$

Paper: 1MA1/2F				
Question	Working	Answer	Mark	Notes
3 (a)		$15fg$	B1	cao
Q2	(b)	t^2	B1	cao
	(c)	$4n$	B1	cao

Paper: 1MA1/3F				
Question	Working	Answer	Mark	Notes
2 Q3		$2y$	B1	for $2y$

Paper 1MA1: 2F				
Question	Working	Answer	Mark	Notes
1 (a)		$3p$	B1	cao
Q4	(b)	$2m^3$	B1	ca
	(c)	$10 - 4c + 6d$	M1	for $-4c$ or $6d$ (accept $+4c$)
			A1	for $10 - 4c + 6d$

Paper 1MA1: 2F				
Question	Working	Answer	Mark	Notes
14 (a)		$5(1 - 2m)$	B1	cao
Q5	(b)	$2ab(a + 3b)$	M1	for $2a(ab + 3b^2)$ or $2b(a^2 + 3ab)$ or $ab(2a + 6b)$ or $2ab$ (2 term expression with terms in a or b or ab , can include constants), eg $2ab(1a + 3ab)$, $2ab(1 + 3b)$
			A1	for $2ab(a + 3b)$

Paper: 1MA1/3F				
Question	Working	Answer	Mark	Notes
2 Q6		$12p + 18b$	M1 A1	$12p$ or $18b$ or $p + b$ $12p + 18b$

Paper: 1MA1/2F				
Question	Answer	Mark	Mark scheme	Additional guidance
7 (a)	$4m$	B1	cao	
Q7 (b)	$8np$	B1	cao	

Paper: 1MA1/1F				
Question	Answer	Mark	Mark scheme	Additional guidance
6 (a)	$12t$	B1	$12t$	Accept $t12$ but not $12 \times t$ or $t \times 12$
(b)	$7a$	B1	$7a$	Accept $a7$ or $7 \times a$ or $a \times 7$ Partial simplification of $5a + 2a$ or $8a - a$ does NOT get the mark
Q8				

Paper: 1MA1/3F				
Question	Answer	Mark	Mark scheme	Additional guidance
20	$9p + 13$	M1	for method to expand one bracket, eg $5 \times p + 5 \times 3 (= 5p + 15)$ or $2 \times 1 - 2 \times 2p (= 2 - 4p)$ or $-2 \times 1 - 2 \times -2p (= -2 + 4p)$	If an attempt is made to multiply by -2 in the second brackets then it must be done consistently.
Q9		A1	cao	

Paper: 1MA1/2F				
Question	Answer	Mark	Mark scheme	Additional guidance
13 (a)	$10ab$	B1	cao	Accept 1y for 1 or 2 marks
(b)	$8x + y$	M1	for $8x$ or y	
Q10		A1	for $8x + y$	

Paper: 1MA1/1F				
Question	Answer	Mark	Mark scheme	Additional guidance
16 (a)	$10m - 15$	B1	for $10m - 15$ oe	Accept any reversing of order in the expression
Q11 (b)	$3(n + 4)$	B1	for $3(n + 4)$ oe	Accept any answer in reverse order

Paper: 1MA1/2F				
Question	Answer	Mark	Mark scheme	Additional guidance
7 Q12	$7y$	B1	for $7y$ oe	Accept $7 \times y$ oe Accept a formula, eg. $P = 7y$ but not $y = 7y$

Paper: 1MA1/2F				
Question	Answer	Mark	Mark scheme	Additional guidance
8 (a)	$7ab$	B1	for $7ab$	
(b)	y^3	B1	cao	
(c)	$\frac{e}{f}$	M1	for a correct first step, eg. numerator of $e^3 \times f$ or denominator of $e^2 \times f^2$ OR $e \div f$ or $e \times f^{-1}$ OR relevant crossings out for all the e 's and all the f 's	
Q13		A1	for $\frac{e}{f}$ or ef^{-1}	

Paper: 1MA1/3F				
Question	Answer	Mark	Mark scheme	Additional guidance
9	$11e + 5f$	M1	for either $11e$ or $5f$	
Q14		A1	for $11e + 5f$	

Paper: 1MA1/1F				
Question	Answer	Mark	Mark scheme	Additional guidance
19 (a)	$x^2 - 4x$	B1	cao	
(b)	$5(3y - 2)$	B1	cao	
(c)	9	M1	for a correct first stage, eg. expanding brackets, $7 \times f - 7 \times 5 (= 28)$ oe or for division of both sides by 7, eg. $\frac{7(f-5)}{7} = \frac{28}{7}$	
Q15		A1	cao	

Paper: 1MA1/2F				
Question	Answer	Mark	Mark scheme	Additional guidance
3 Q16	$6e$	B1		

Paper: 1MA1/3F				
Question	Answer	Mark	Mark scheme	Additional guidance
14 (a) Q17	5x + y	M1	for method to collect terms, eg 5x or y	May be seen in working. Accept if no ambiguity. Accept 1y. Must be carried out, not just intention. Division by 5 must be all terms.
		A1	cao	
	3	M1	for subtracting 7 from both sides or dividing each term by 5 as a first step, eg 5p = 15 or 5p = 22 - 7 or $\frac{5p}{5} + \frac{7}{5} = \frac{22}{5}$	
		A1	cao	

Paper: 1MA1/2F				
Question	Answer	Mark	Mark scheme	Additional guidance
4 (a)	4m	B1	cao	
Q18 (b)	3p	B1	ca	

Paper: 1MA1/3F				
Question	Answer	Mark	Mark scheme	Additional guidance
6 (a)	$4ab$	B1		
(b)	$3x + 8$	M1	for method to collect terms eg $3x$ or 8	May be seen in working. Accept if no ambiguity.
Q19		A1	for $3x + 8$	

Paper: 1MA1/3F				
Question	Answer	Mark	Mark scheme	Additional guidance
17 (a)	$y^2 + 5y$	B1	cao	Do not award if there is contradiction
(b)	$2(2a - 3)$	B1	cao	
(c)	2.9	M1	for a correct first stage eg. expanding the brackets, $2 \times 5x - 2 \times 4 (= 10x - 8)$ or division of both sides by 2, eg $\frac{2(5x - 4)}{2} = \frac{21}{2}$	
Q20		M1	for isolating terms in x eg $10x = 21 + 8$	
		A1	oe	
(d)	$20 e^3 f^4$	M1	for any two of $4 \times 5 (=20)$, $e^{2+1} (=e^3)$, $f^{1+3} (=f^4)$ in a product or written as individual terms	
		A1	cao	

Paper: 1MA1/1F				
Question	Answer	Mark	Mark scheme	Additional guidance
5 Q21	$15tw$	B1	for $15tw$	May be seen in different order

Paper: 1MA1/2F				
Question	Answer	Mark	Mark scheme	Additional guidance
14 (a)	$7c + 6d$	M1	for $7c$ or $6d$	Condone use of b and p
		A1	for $7c + 6d$	
(b)	7	M1	for correct method to expand, eg $5 \times 2m - 5 \times 6$, or divides both sides by 5 as a first step.	
Q22		M1	for correct method to isolate terms in m , eg $10m - 30 + 30 = 40 + 30$	
		A1	cao	
(c)	$3x + 2y$	M1	for $3x$ or $2y$	
		A1	cao	

Paper: 1MA1/1F				
Question	Answer	Mark	Mark scheme	Additional guidance
2 Q23	$4e$	B1	for $4e$ oe	e^4 gets no marks, where the 4 is clearly a power

Paper: 1MA1/3F				
Question	Answer	Mark	Mark scheme	Additional guidance
4 Q24	$6m$	B1	for $6m$	

Paper: 1MA1/3F				
Question	Answer	Mark	Mark scheme	Additional guidance
17 Q25	(a) $12 - 6x$	B1	for $12 - 6x$ (accept $-6x + 12$)	Do not accept ambiguous algebraic expressions Do not accept equivalent expressions not fully factorised
	(b) 16	M1	for a correct first step, eg. $3y = 12 \times 4 (= 48)$ or $\frac{y}{4} = \frac{12}{3}$	
	(c) $2(2p + 3)$	B1	cao	

Paper: 1MA1/2F				
Question	Working	Answer	Mark	Notes
24 Q26	(a)	± 6	M1	for one value (6 or -6) or $\sqrt{36}$ or an embedded answer eg $2 \times 6^2 = 72$
	(b)	$6x^2 - x - 2$	M1	for at least 3 terms correct out of a maximum of 4 from expansion, or 4 terms correct ignoring signs.
	(c)	$(x + 3)^2$	B1	for $(x + 3)^2$ or $(x + 3)(x + 3)$

Paper: 1MA1/3F				
Question	Working	Answer	Mark	Notes
17 Q27	(a)	$4(m + 3)$	B1	for $4(m + 3)$ or $2(2m + 6)$
	(b)	term, expression	B1 B1	for 'term' in the 1 st space for 'expression' in the 2 nd space

Paper: 1MA1/1F				
Question	Working	Answer	Mark	Notes
24 Q28		$x^2 + 6x = 1$	M1 M1 A1	writes the area using algebraic terms e.g. $(x + 3) \times (x + 3)$ or at least two correct area expressions, may be written on the diagram or x given as $\sqrt{10} - 3$ expands and includes the given 10 e.g. $x^2 + 3x + 3x + 9 = 10$; condone one error in the four terms when expanding or $10 - 3\sqrt{10} - 3\sqrt{10} + 9 + 6\sqrt{10} - 18 (=1)$ condone 1 error in the 6 terms rearranges to give the given equation or shows surd expression simplifies to 1

Paper: 1MA1/2F				
Question	Answer	Mark	Mark scheme	Additional guidance
26 (a) Q29	$10x^2 - 11x - 6$	M1 A1	for 3 out of no more than 4 terms correct with correct signs or 4 correct terms ignoring signs cao	$10x^2 - 15x + 4x - 6$ NB: $10x^2 - 11x$ and $-11x - 6$ are indicative of 3 correct terms.
(b)	$(x + 1)(x + 3)$	M1 A1	for $(x \pm 1)(x \pm 3)$ or for $(x + a)(x + b)$ where either $ab = 3$ or $a + b = 4$ cao	

Paper: 1MA1/2F				
Question	Answer	Mark	Mark scheme	Additional guidance
18 (a)	$T = 4n - 5$	M1	for $2n$ or $n - 5$ or $T =$ a linear expression in n	Allow variables other than n
Q30		M1	for $n + 2n + n - 5$ oe OR for $T =$ an expression in n with 2 of 3 ages correct eg $T = n + n^2 + n - 5$	Each age must be an expression in n
		A1	for $T = 4n - 5$ oe eg $T = n + 2n + n - 5$	
(b)	$5m - 3m = 2m$	B1	for $5m - 3m = 2m$ indicated	

Paper: 1MA1/3F				
Question	Answer	Mark	Mark scheme	Additional guidance
22 (a)	$x^2 - 4x - 45$	M1	for 3 of 4 terms correct or 4 terms correct ignoring signs	3 terms correct can be implied, eg $x^2 - 4x + c$
Q31		A1	cao	
		(b)	$3x(3x + 2)$	B2
		(B1	for $3(3x^2 + 2x)$ or $x(9x + 6)$ or $3x(ax + b)$ where a and b are integers or $(3x + 2)$ as a factor)	

Paper: 1MA1/2F				
Question	Answer	Mark	Mark scheme	Additional guidance
21 (a)	x^{15}	B1	cao	
(b)	$40 - 10x$	M1	for method to expand one bracket or collect like terms, eg $4 \times x + 4 \times 3 (= 4x + 12)$ or $7 \times 4 - 7 \times 2x (= 28 - 14x)$ or $4 \times x - 7 \times 2x (= 4x - 14x)$ and $4 \times 3 + 7 \times 4 (= 12 + 28)$	
Q32		A1	oe	
(c)	$3x^2(5x + y)$	M1	for $3(5x^3 + x^2y)$ or $x(15x^2 + 3xy)$ or $3x(5x^2 + xy)$ or $x^2(15x + 3y)$ or $3x^2(ax + by)$	Where $a \geq 1$ and $b \geq 1$
		A1	cao	