

Paper: 1MA1/1H				
Question	Working	Answer	Mark	Notes
11		Tea £1.40	P1	for setting up two appropriate equations eg $3t + 2c = 7.80$, $5t + 4c = 14.20$
Q1		Coffee £1.80	M1	for method to eliminate one variable, condone one arithmetic error
			M1	for method to substitute found variable or start again
			A1	Tea £1.4(0) and Coffee £1.8(0) with amounts linked to correct drinks

Paper: 1MA1/1H				
Question	Working	Answer	Mark	Notes
20		$x = -\frac{24}{5}$	M1	for substitution of a rearrangement of $y - 3x = 13$ e.g. $(3x + 13)^2 + x^2 = 25$
Q2		$y = -\frac{7}{5}$	M1	(dep M1) for expansion of bracket after substitution (at least 3 terms correct out of the 4 terms) e.g. $9x^2 + 39x + 39x + 169$
		$x = -3,$	M1	for forming quadratic ready for solving e.g. $10x^2 + 78x + 144 (= 0)$
		$y = 4$	M1	for factorising e.g. $(5x + 24)(x + 3) (= 0)$ oe
			A1	$x = -\frac{24}{5}, y = -\frac{7}{5}$ and $x = -3, y = 4$ SC: B1 (if M0) for all 4 values mis-associated or one correct pair of values or values given as coordinates.

Paper 1MA1: 3H				
Question	Working	Answer	Mark	Notes
2		$x = -\frac{2}{3}$	M1	for a method to eliminate one variable (condone one arithmetic error)
Q3		$y = -2$	M1	(dep) for substituting found value in one of the equations or appropriate method after starting again (condone one arithmetic error)
			A1	$x = -\frac{2}{3}$ oe and $y = -2$

Paper: 1MA1/1H				
Question	Answer	Mark	Mark scheme	Additional guidance
10 Q4	$x = 2.2$ to 2.3 $y = -1.3$ to -1.4	M1 A1	for recognition of use of intersection point, one of the solutions given, solutions reversed or solutions given as a coordinate. x given in the range 2.2 to 2.3 , y given in the range -1.3 to -1.4	

Paper: 1MA1/3H				
Question	Answer	Mark	Mark scheme	Additional guidance
Q5	$x = 3\frac{2}{5}, y = -\frac{4}{5}$	M1	for substitution of a rearrangement eg $x = \frac{7-4y}{3}$ or $y = \frac{7-3x}{4}$ into $x^2 - 4y^2 = 9$ or expansion of $\left(\frac{7-4y}{3}\right)^2 = \frac{49-56y+16y^2}{9}$ or $\left(\frac{7-3x}{4}\right)^2 = \frac{49-42x+9x^2}{16}$	Expansion may not be in simplest form but must be correct Note we do not need to see “= 0”; just the LHS is sufficient. Can be implied by both x values correct or both y values correct. Answers must be correctly paired. Accept coordinate pairs
		M1	for correct expansion and substitution eg $\frac{49-56y+16y^2}{9} - 4y^2 = 9$ or $x^2 - 4\left(\frac{49-42x+9x^2}{16}\right) = 9$	
	A1	for forming quadratic ready for solving eg $-20y^2 - 56y - 32 (= 0)$ or $5y^2 + 14y + 8 (= 0)$ oe or $5x^2 - 42x + 85 (= 0)$ oe		
	M1	ft a 3 term quadratic , factorising eg $(5y + 4)(y + 2) (= 0)$ or $(5x - 17)(x - 5) (= 0)$ or correct use of formula eg $(y =) \frac{-14 \pm \sqrt{14^2 - 4 \times 5 \times 8}}{2 \times 5}$ or $(x =) \frac{-42 \pm \sqrt{42^2 - 4 \times 5 \times 85}}{2 \times 5}$ or completing the square, eg $(y + \frac{7}{5})^2 - \frac{9}{25} (= 0)$ or $(x - \frac{21}{5})^2 - \frac{16}{25} (= 0)$		
	A1	correctly pairs x and y values: $x = 3\frac{2}{5}, y = -\frac{4}{5}$ oe , $x = 5, y = -2$		

Paper: 1MA1/3H				
Question	Answer	Mark	Mark scheme	Additional guidance
6 (a)	-2, 4	B1	cao	
Q6	0.55 to 0.65, 3.35 to 3.45	M1	for correct method, eg marking intercepts with x -axis or one correct answer or both solutions given as a coordinate eg (0.6, 3.4) or (0.6, 0) (3.4, 0)	If answers are stated as coordinates, award M1 for both coordinates and M0 for one coordinate.
		A1	for answers in the ranges 0.55 to 0.65 and 3.35 to 3.45	With no extras

Paper: 1MA1/1H				
Question	Answer	Mark	Mark scheme	Additional guidance
20	$x = 2.1, y = 5.1$ $x = -2.9, y = -4.7$	M1	for drawing the graph of $y - 2x = 1$	
Q7		A1	for one correct pair of values or for both correct x values, or for both correct y values	For both A marks accept answers in the ranges $x = 2.0$ to $2.2, y = 5.0$ to 5.2 $x = -2.8$ to $-3.0, y = -4.6$ to -4.8
		A1	for both correct pairs, correctly matched	Accept values given as coordinates

Paper: 1MA1/3H				
Question	Answer	Mark	Mark scheme	Additional guidance
16	Shown (supported)	M1	for eliminating y or x , eg $x^2 + 3x - 3 = 5x - 4$	There must be a statement in words for the award of this mark
Q8		M1	for rearranging, collecting terms and setting to 0 eg $x^2 - 2x + 1 (= 0)$	
		M1	for factorising or solving eg $(x - 1)^2 (= 0)$	
		C1	for statement confirming only 1 point in common eg only 1 root or only 1 value of x so only 1 set of coordinates	

Paper: 1MA1/1H				
Question	Answer	Mark	Mark scheme	Additional guidance
6	$x = 4.5, y = -1.5$	M1	correct process to eliminate one variable (condone one arithmetic error)	Fractions do not need to be in simplest form
Q9		M1	(dep) for substituting found value in one of the equations OR correct process after starting again (condone one arithmetic error)	
		A1	for $x = 4.5, y = -1.5$ oe	

Paper: 1MA1/3H				
Question	Answer	Mark	Mark scheme	Additional guidance
Q10	$x = -\frac{23}{7}, y = \frac{15}{7}$ $x = 3, y = -1$	M1	for substitution of a rearrangement eg for $2(1 - 2y)^2 - y^2 = 17$ or $2x^2 - \left(\frac{1-x}{2}\right)^2 = 17$ or expansion of $(1 - 2y)^2 = 1 - 4y + 4y^2$ or $\left(\frac{1-x}{2}\right)^2 = \frac{1-2x+x^2}{4}$	Can be implied by both x values correct or both y values correct. Answers must be correctly paired. (Maybe in the body of the working) Accept for x between -3.29 and -3.28 and for y between 2.14 and 2.15 Answers only award 0 marks
		M1	for expansion of bracket and substitution eg $2(1 - 4y + 4y^2) - y^2 (= 17)$ or $8x^2 - (1 - 2x + x^2) (= 68)$	
		A1	for forming quadratic ready for solving eg $7y^2 - 8y - 15 (= 0)$ or $7x^2 + 2x - 69 (= 0)$	
		M1	fit a 3 term quadratic, factorising eg $(7y - 15)(y + 1) (= 0)$ or $(7x + 23)(x - 3) (= 0)$ or correct use of formula eg $\frac{8 \pm \sqrt{64 + 420}}{14}$ or $\frac{-2 \pm \sqrt{4 + 1932}}{14}$ or completing the square	
		A1	$x = -\frac{23}{7}$ oe, $y = \frac{15}{7}$ oe and $x = 3, y = -1$	

Paper: 1MA1/1H				
Question	Answer	Mark	Mark scheme	Additional guidance
12	$x = 3, y = -2$	M1	for a correct method to eliminate either variable or rearrangement of one equation leading to substitution (condone one arithmetic error)	Trial and improvement methods score 0 marks unless both x and y are correct
Q11		A1	for either correct value of x or correct value of y	
		M1	(dep M1) for a correct substitution of found value into one of the equations or a correct method leading to the second value (condone one arithmetic error)	
		A1	$x = 3, y = -2$	

Paper: 1MA1/3H				
Question	Answer	Mark	Mark scheme	Additional guidance
Q12	(-3, -11) and (5.5, 6)	M1	for method to eliminate one variable, eg $(2x - 5)^2 = 6x^2 - 25x - 8$ or $y^2 = 6\left(\frac{y+5}{2}\right)^2 - 25\left(\frac{y+5}{2}\right) - 8$	
		M1	for expanding the square to give, eg. $4x^2 - 20x + 25 = 6x^2 - 25x - 8$ or $y^2 = 6\left(\frac{y^2+10y+25}{4}\right) - 25\left(\frac{y+5}{2}\right) - 8$	
		M1	for method to solve equation $2x^2 - 5x - 33 (= 0)$, eg $(2x - 11)(x + 3) (= 0)$ or $x = \frac{-5 \pm \sqrt{(-5)^2 - 4 \times 2 \times -33}}{2 \times 2}$ or -3, 5.5 oe or for method to solve equation $2y^2 + 10y - 132 (= 0)$, eg. $(2y + 22)(y - 6) (= 0)$ or $y = \frac{-10 \pm \sqrt{10^2 - 4 \times 2 \times -132}}{2 \times 2}$ or -11, 6	
		A1	for (-3, -11)	
		A1	for (5.5, 6) oe	