

Question		Answer	Marks	Part Marks and Guidance	
1	(a)	$(x - 5)(x - 2)$ 5 and 2	M2 B1	M1 for $(x + a)(x + b)$ where $a + b = -7$ or $ab = +10$	Final mark independent of method
	(b)	Substitute for y or equalise coefficients Obtain <u>any</u> correct equation in x (or y) $x = 3$ $y = -2$	M1 A1 B1 B1	Allow one error	

2		$60x + 9y = 3$ $100x + 15y = 5$ $60x - 50y = 180$ or $18x - 15y = 54$	M1	for multiplying both equations to get either coefficient equal (allow 1 error)	$x = \frac{59}{118}$ followed by $x = 2$ is common and scores 3 isw Dep on M2 If no more than 1 error in multiplication follow through for a maximum of 3 marks Correct answer with no working scores 4.
		$59y = -177$ or $118x = 59$	M1dep	for adding or subtracting as appropriate (allow 1 error)	
		$y = \frac{-177}{59}$ or $x = \frac{59}{118}$	A1FT	for either x or y correct oe isw	
		$x = \frac{1}{2}$ or 0.5 $y = -3$	A1	Mark final answer	

3	(a)	22	1		
	(b)	$3t + 3c = 66$ $4t + 4c = 88$ For subtracting (allow 1 error) $c = 10$ $t = 12$	M1 M1dep A1	For multiplying equation to get either coefficient equal (allow 1 error) <u>Or for substitution</u> $3(22 - c) + 4c = 76$ M1 $3t + 4(22 - t) = 76$ $66 - 3c + 4c = 76$ M1 $3t + 88 - 4t = 76$	If both attempted mark the best If answer to (a) is wrong then max M1M1 Correct answer with no working scores 3

4	(a)	5 points correct	2	B1 for any 2 points correct	Accuracy: the centre of their cross or dot should lie within the 'circle' on the overlay
		Ruled line of best fit	1	between the overlay lines	
	(b)	<p>Correct solution well explained e.g. Answer of around £160 pp, use of lobuf commented on with people = 10 to get cost in region of £1200. Adding of £400 and $\div 10$ explained. Other possibilities involve renting a larger cottage or 2 cottages. Correct and clear language throughout.</p> <p>Limited comments on either using lobuf or adding of £400 and $\div 10$. Answer probably around £100 - £200 pp. Comments may be in form of sentences or bullet points.</p> <p>No correct work seen</p>	4-	For lower mark – there might be lack of clarity in explaining either using the lobuf or adding of £400 and $\div 10$ or minor errors in spelling, punctuation or grammar.	Reading should be in range 1050 - 1300
			2-	For lower mark – either one aspect of the calculation seen or some explanation maybe with poor spelling, punctuation and grammar	Use and mention of lobuf and $\div 10$ is awarded 2 marks but $400 \div 10$ only 1. See exemplars.
			0		

5	(a)	$p = \frac{t+3}{2}$	2	<p>Oe final answer</p> <p>M1 for $t + 3 = 2p$ oe or $\frac{t}{2} = p - \frac{3}{2}$</p> <p>or $\frac{t+3}{2}$</p> <p>Or SC1 for final answer $p = \frac{t}{2} +$</p> <p>or $p = \frac{t-3}{2}$ or $p = t + \frac{3}{2}$ oe</p> <p>or $p = t + 3 \div 2$ or $p = \frac{-t-3}{2}$ oe</p>	
	(b)	$x = 2 \quad y = 5$	2	<p>B1 for $x = 2$ or $y = 5$</p> <p>or for $x = 5$ and $y = 2$</p> <p>Or M1 for attempt to add/subtract equations</p>	<p>Answers reversed</p> <p>With 2 of the 3 terms correct</p>

6	(a)	..., ..., -1, ..., ..., 8	2	B1 for one value correct	
	(b)	<i>their</i> 6 points correctly plotted	1	$\pm \frac{1}{2}$ small square	
		<u>U shaped curve</u> through <i>their</i> six points	1	Within $\frac{1}{2}$ small square of each point	
	(c)	$x = 1.55$ to 1.7 $y = -0.9$ to -0.6	1		
		$x = 4.3$ to 4.6 $y = 4.6$ to 5.2	1	<u>After zero</u> : SC1 for two correct x values	

7	(a)	(i)	-4, 2, 4	2	B1 for one correct	
		(ii)	Correct ruled line	2	Within overlay B1 for two correct (or FT) points plotted	At least for $-3 \leq x \leq 1$
		(iii)	0-0.2 and 2.1-2.4	1FT	FT <i>their</i> crossing point (± 0.1)	
	(b)	(i)	$x = \frac{1}{7}, y = 2\frac{2}{7}$ oe fractions or correct recurring decimal as final answer	4	M1 for $14x + 7y = 18$ oe $14x - 7y = -14$ DepM1 for $28x = 4$ or $14y = 32$ A1 for $x = \frac{1}{7}$ or $y = 2\frac{2}{7}$ oe Or if substitution used eg M1 for $14x + 7(2x + 2) = 18$ DepM1 for $28x = 4$ oe A1 for $x = \frac{1}{7}$ oe fraction or correct recurring decimal	For multiplying to get coefficients equal (allow 1 error) For adding or subtracting (allow 1 error) For either x or y correct as a fraction or recurring decimal isw Dep on M2 If no more than 1 error in multiplication (either method) follow through for a maximum of 3 marks Condone missing brackets Correct answer with no working scores 4
		(ii)	Fraction, or recurring decimal, needed for exact answer	1		