1	(b)	3x - 8x < 3 - 15  or  15 - 3 < 8x - 3x			3	M1	accept as equation or with the wrong		
	-	-5x < -12  or  12 < 5x				M1	inequality sign. accept as equation or with the wrong		
				> 2.4		A 1	inequality sign.		
				x > 2.4		A1	Accept $2.4 < x$ or $x > \frac{12}{5}$ oe		
							allow $(-\infty, 2.4)$		
							award M1 M1 A0 for 2.4 with = sign or no inequality or incorrect inequality sign.		
2	c	7 2			2	M1	accept as an equation or with wrong		
		$4x > 2 - 7$ oe or $x + \frac{7}{4} > \frac{2}{4}$ oe					inequality sign.		
			х	>-1.25		A1	oe allow $(-1.25, (+)\infty)$		
							Note: award M1A0 for an answer of $-1.25$ with no sign or the incorrect sign eg $x = -1.25$ , $x < -1.25$		
2	(a)	T		10122	1 2	<u>a</u>	22 P1 for 2 1 0 1 2 2 4		
3	(a)			-1, 0, 1, 2, 3,			or -1, 0, 1, 2, 3		
	(b)		$y \le 6$ x + y > 5		2		B2 for 3 correct inequalities B1 for 2 correct inequalities		
				$     \begin{aligned}       x + y &\ge 5 \\       y &\ge x - 3     \end{aligned} $			(In both cases allow $\leq$ in place of $\leq$ , and $>$ in place of $\geq$ )		
							P = <u></u> )		
							Total 4 marks		
4	(a) 23	x > 4 - 7 or $x + 3.5 > 2$		2	M1	For a corr	rect first step allow $2x = 4 - 7$ or $x + 3.5 = 2$		
	(-)					or an ans	wer of $x = -1.5$ or $x < -1.5$ or $-1.5$		
			X	>-1.5	A1 :	for $x > -1$	1.5 oe		
5	(a)			<i>x</i> ≤ 2	,	1	B1 Allow $2 \ge x$		
	(b)			-2, -1, 0	, 1, 2	2	B2 (B1 for 4 correct values and no incorrect values (eg -1, 0, 1, 2) or for 6 values with no more than one incorrect value (eg -2, -1, 0, 1, 2, 3))		
	(c)	$7t - 2t \le 31 + 3$ or				2	M1 t terms on one side and numbers		
		$5t \le 34$ or $-3 - 31 \le 2t - 7t$ or $-34 \le -5t$ oe					on the other. Condone = rather than $\leq$ or any other sign for this mark.		
	-	Working required		t ≤ 6.8			A1 oe eg $t \le \frac{34}{5}$ or $t \le 6\frac{4}{5}$ or $6.8 \ge t$		
							Must have correct sign on answer		
							line dep on M1 (sight of correct answer in working space and just 6.8 on answer line gains M1 only)		
	-						Total 5 marks		
6	a		Corr	ect number li	ne 2	B2 f	for a fully correct number line e.g. shaded		
	**						sircle at -2, unshaded circle at 1 and a line drawn between them		
							for a shaded circle at -2 <b>or</b>		
						an unshaded circle at 1 <b>or</b> circles at -2 and 1 with line in between but			
	b		_2	-2, -1, 0, 1,	2 2		shading incorrect fully correct values with no extras		
	U		-3,	۷, -1, U, 1, .	<sup>2</sup>   <sup>2</sup>				
						a	for 5 correct values and none incorrect or all 6 correct values with no more than one additional incorrect value		
							Total 4 marks		

7	(c)(i)	7t - 2t < 7 + 8 oe eg $5t < 15$ oe	open ci	t < 3 rele at $t = 3$ ine with an to the left		Al B1ft	Terms in $t$ on one side and number terms the other side – may be in an equation or the incorrect inequality sign or an answer of $t = 3$ or eg $t \ge 3$ Must be a correct inequality given as answer  Allow a line without an arrow if it reaches to at least $-5$ , with an arrow it can be any length
8		$-4x \le 11-3$ or $-4x \le 8$ or $-x \le 2$ or $3-11 \le 4x$	or $-8 \le 4x$		2	M1	allow equals sign or condone incorrect inequality sign for M1 only
				<i>x</i> ≥ −2		A1	allow $-2 \le x$
							SCB1 for $x$ and $-2$ with an incorrect sign between them or $-2$ as an answer
							Total 2 marks
9	(a)	a) -2, -1, 0, 1, 2		0, 1, 2	2	B2 for -2 repeats	2, -1, 0, 1, 2 with no additions or
						(B1 for 4 of -2, -1, 0, 1, 2 with no addition or repeats <b>or</b> for 6 values with no more than one incorrec	
						value e.g. all of -2, -1, 0, 1, 2, 3 or for 5 values with one error)	
	(b)	3 -2 -1 1 1 2 3 7	x =	Closed circle at $x = 1$		B1 for a	closed circle at $x = 1$ and a line with of any length to the left
		3 -2 -1 0 1 2 3 Y	a line w	and a line with an arrow to the left		Allow ] for a closed circle  Allow a line without an arrow if it reaches to	
						at least -	3
							Total 3 marks
10	(a)	4 <i>y</i> > 12 - 5			2	M1 A	$1 \text{llow } y = \frac{7}{4} \text{ oe or } y < \frac{7}{4}$
			y	$y > \frac{7}{4}$		Al oe	2
						2.55	
11	(a)	$5x \le 2+7$ or $5x \le 9$ or $\frac{5x}{5} - \frac{7}{5} \le \frac{2}{5}$ oe			2	M1	allow any sign instead of $\leq$ or for an answer of 1.8 oe or x and 1.8 oe with the incorrect sign
			x	≤1.8		A1	oe
12	(a)	-	-3, -2, -1, 0,	1 2 E	32 for	-3, -2, -1	1, 0, 1
					no i <b>or</b> f	ncorrect v or 6 value	a award B1 for 4 correct values and values (eg $-3$ , $-2$ , $-1$ , 0) as with no more than one incorrect $-3$ , $-2$ , $-1$ , 0, 1)
	(b)		x > -1	1 F	B1_acc	$ept-1 \le x$	
							Total 3 marks

13	(b)		<i>x</i> ≤ 3	1	B1 allow $3 \ge x$
					Allow any letter for x
	(c)	6-14 > 12w-7w oe or $7w-12w > 14-6$ oe		3	M1 Condone = rather than > or any other
					sign for this mark.
		$-8 > 5w \text{ or } -5w > 8 \text{ or } -w > \frac{8}{5} \text{ or } w > -\frac{8}{5} \text{ or }$			M1 Condone = rather than $>$ or any other
		-8 > 5 W OI -5 W > 8 OI - W > OI W > OI 5 5			sign for this mark.
		$w = -\frac{8}{5}$ oe			
		5			
		Correct answer scores full marks (unless from obvious incorrect working)	$w < -\frac{8}{5}$		A1 oe accept $-\frac{8}{5} > w$
		_			Must have correct sign on answer line dep
					on M1
					(sight of correct answer in working space
					and just $(w =) -\frac{8}{5}$ oe on answer line gains
					M2 only)
14	(a)	-4x > 17 - 9 or $-4x > 8$ or		2	M1 for a correct first step
		9-17 > 4x  or  -8 > 4x  or			Condone = rather than > or any other sign
		$\frac{9}{4} - x > \frac{17}{4}$ oe or $-\frac{9}{4} + x < -\frac{17}{4}$ oe			for this mark.
		Correct answer scores full marks (unless from	x < -2		A1 oe eg $-2 > x$
		obvious incorrect working)			(sight of correct answer in working space
		<i></i>			and just $(x =) -2$ on answer line gains M1
					only)