Question Number	Scheme	Marks
2 (a)	E.g. $(x+3)(x-5)=9 \Rightarrow x^2-2x-24=0 \Rightarrow x=...$ OR $(x-5)(x+3)^2-9(x+3)=0 \Rightarrow (x+3)(x-6)(x+4)=0 \Rightarrow x=...$ OR $\dfrac{(x+3)(x-5)-9}{x+3}<0 \Rightarrow x^2-2x-24=0 \Rightarrow x=...$	M1
	CVs: $6,\ -4\ ;\ -3$	A1;B1
	$x<-4,\quad -3<x<6$	dM1A1A1
	OR: $x\in(-3,6)\cup(-\infty,-4)$ or any equivalent notation.	(6)
(b)	$x<6,\quad x\neq -3$ or any equivalent notation.	B1ftB1 (2)
		[8]
	Notes	
(a) **M1**	For a correct **algebraic** method to find the intersection points of $y=x-5$ and $y=\dfrac{9}{x+3}$. May set these equal and form a quadratic and solve. May multiply through by $(x+3)^2$ and collect on one side or use any other valid method Eg work from $\dfrac{(x+3)(x+2)-12}{x+3}>0$ Answers only from a calculator score M0. Must reach at least a quadratic or cubic before answers given. Do not be concerned with the equality or inequality for this mark.	
A1	For 6, −4 obtained via a valid algebraic method.	
B1	for the CV -3 seen anywhere	
dM1	Obtaining (any) inequalities using all of their critical values and no other numbers.	
A1	For at least one correct interval allowing for … or „ used instead of < and >	
A1cso	Both correct ranges and no extras. Use of … or „ scores A0. May be written in set notation, and all work should have been correct so penalise if incorrect inequalities method was used at the start. Accept $x<-4$ and/or $-3<x<6$ with "and" or "or" For candidates who draw a sketch graph and follow with the cvs without any algebra shown only the **B** mark is available. **Those who use some algebra** after their graph may gain marks as earned (possibly all)	
(b) **B1ft**	For the "$x<6$" in some form with the possible exception of the CVs from (a). Allow x„ 6 if already penalised in (a). It is essentially for realising all the extra (valid) values less than -3 are solutions while retaining all their given solutions. If only the CVs themselves are excluded allow B1. Follow through their answer to (a).	
B1	Fully correct answer. May give as intervals $x<-3, -3<x<6$	