

Question Number	Scheme	Marks	AOs
1 (a)	$4(x-3) > 8 - 2x \Rightarrow 6x > 20$	M1	1.1b
	$\Rightarrow x > \frac{10}{3}$ o.e.	A1	1.1b
		(2)	
(b)	$(2x+5)(x-8) < 0 \Rightarrow$ Critical values $-\frac{5}{2}, 8$	M1	1.1b
	$-\frac{5}{2} < x < 8$	A1	1.1b
		(2)	
(c)	$\frac{10}{3} < x < 8$	B1	1.1b
		(1)	
(5 marks)			
Notes:			

(a)

M1: Expands the bracket on LHS and simplifies to reach a form $ax \dots b$ or $x \dots c$ where $\dots$ is any equality or inequality.

A1: $x > \frac{10}{3}$ o.e. in terms of x but requires some intermediate line, e.g. $4x - 12 > 8 - 2x$

Allow recovery if they use equality throughout and achieve the correct answer.
Answer only scores no marks. Do not ISW if they go on to state e.g. $x = 4$

(b)

M1: Achieves at least one of the critical values of $-\frac{5}{2}$ and/or 8 which may be seen embedded in an equation or inequality.

If they decide to expand the brackets and then attempt to solve from here, they must still find at least one of the critical values $-\frac{5}{2}$ and/or 8 i.e. this mark cannot be scored for an attempt to solve their quadratic.

A1: $-\frac{5}{2} < x < 8$ o.e. such as $x \in \left(-\frac{5}{2}, 8\right)$ Must be seen in (b) and not clearly their answer to (c).

Not scored for just $x < 8$, $x > -\frac{5}{2}$, but condone $x > -\frac{5}{2}$ **and** $x < 8$ or e.g. $x > -\frac{5}{2} \cap x < 8$

Answer only scores both marks.
Must be in terms of x but do not penalise a second time.

(c)

B1: $\frac{10}{3} < x < 8$ o.e. such as $x \in \left(\frac{20}{6}, 8\right)$

Not scored for just $x < 8$, $x > \frac{10}{3}$, but condone $x > \frac{10}{3}$ **and** $x < 8$ or e.g. $x > \frac{10}{3} \cap x < 8$

Note that this is not a follow through mark but allow it to be scored provided it follows from their answers in parts (a) and (b) (the A marks need not have been scored).

e.g. a) $k > \frac{10}{3}$, b) $x < 8$, $x < -\frac{5}{2}$ leading to c) $\frac{10}{3} < x < 8$ scores M1A0 M1A0 B1

e.g. a) $x > \frac{10}{3}$, b) $x = 8$, $x = -\frac{5}{2}$ (with no selection of inequalities) leading to

c) $\frac{10}{3} < x < 8$ scores M1A1 M1A0 B1 with the B1 condoned.

Note that e.g. a) $k > \frac{10}{3}$, b) $x > 8$, $x < -\frac{5}{2}$ leading to c) $\frac{10}{3} < x < 8$ scores M1A0 M1A0 B0 as the answer to part (c) does not follow.

Must be in terms of x but do not penalise a second time.