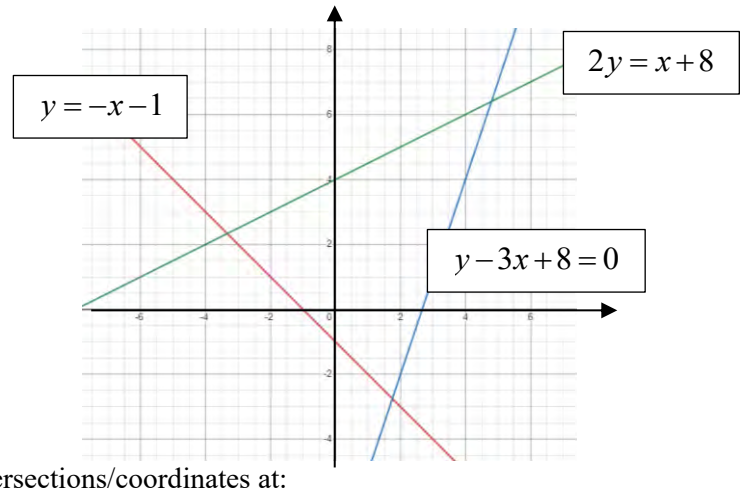
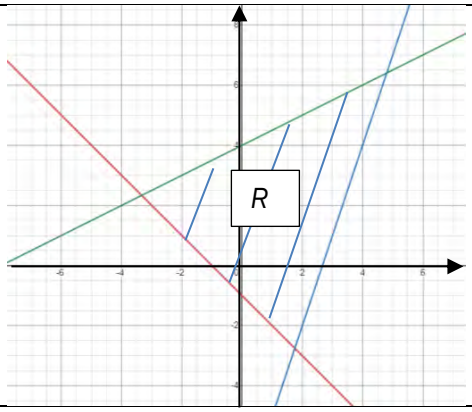
Question	Scheme	Marks
4(a)	 Intersections/coordinates at: $y=-x-1 \Rightarrow (-1,0)$ and $(0,-1)$ $2y=x+8 \Rightarrow (-2,3)$ and $(0,4)$ $y-3x+8=0 \Rightarrow (3,1)$ and $(2,-2)$	B3 [3]
(b)		B1ft [1]
(c)	<table><tr><td>Intersection</td><td>$\left(-3\frac{1}{3},2\frac{1}{3}\right)$</td><td>$\left(1\frac{3}{4},-2\frac{3}{4}\right)$</td><td>$\left(4\frac{4}{5},6\frac{2}{5}\right)$</td></tr><tr><td>$P$</td><td>$\frac{44}{3}$</td><td>$-10.75$</td><td>$-1.6$</td></tr></table> $P_{\max}=\frac{44}{3}$ $P_{\min}=-10.75$	M1A1 dM1A1 [4]

Total 8 marks

Part	Mark	Notes
(a)	B1	For at least one line drawn correctly. Please check their intersections/coordinates carefully, these lines are to be drawn accurately.
	B1	For at least two lines drawn correctly
	B1	For all three lines drawn correctly.
(b)	B1ft	For an enclosed region shaded in or out. Ft their lines from (a) provided the region is closed. *R* does not need to be written in the region.
(c)	M1	For an attempt to find the coordinates of at least one point of intersection either by simultaneous equations or by reading off from their graph. The question does not specify 'using your graph' so either method is fine.
	A1	For at least one set of correct coordinates. If the candidate uses the graph, then allow all values awrt: $(-3.3 \pm 0.1,\ 2.3 \pm 0.1)$ for $\left(-3\frac{1}{3}, 2\frac{1}{3}\right)$ $(1.7 \pm 0.1,\ -2.7 \pm 0.1)$ for $\left(1\frac{3}{4}, -2\frac{3}{4}\right)$ $(4.8 \pm 0.1,\ 6.4 \pm 0.1)$ for $\left(4\frac{4}{5}, 6\frac{2}{5}\right)$
	dM1	For using at least one set **their** coordinates of their intersections to find any value of *P* Explicit substitution need not be seen provided it is clear candidates are using the expression for *P*. Accept awrt: 14.6 ± 0.1 or -10.7 ± 0.1 or -1.6 ± 0.1 **Note** this is dependent on the previous M mark If their values are incorrect and you see no working this is M0 If their values are correct, you see no working and no value of *P* is correct M0
	A1	For both the correct minimum and maximum values. $P_{\max} = 14.66$ accept awrt 14.7 ± 0.3 $P_{\min} = -10.75$ accept awrt -10.7 ± 0.3