

4 (a) On the grid opposite, draw the line with equation

(i) $y = 2x - 4$

(ii) $2x + 3y = 12$

(iii) $y + 2x + 2 = 0$

(3)

(b) Show, by shading on the grid, the region R defined by the inequalities

$y \geq 2x - 4$

$2x + 3y \leq 12$

$y + 2x + 2 \geq 0$

(1)

For all points in R , with coordinates (x, y)

$$P = x - 2y$$

(c) find the least value of P

(4)

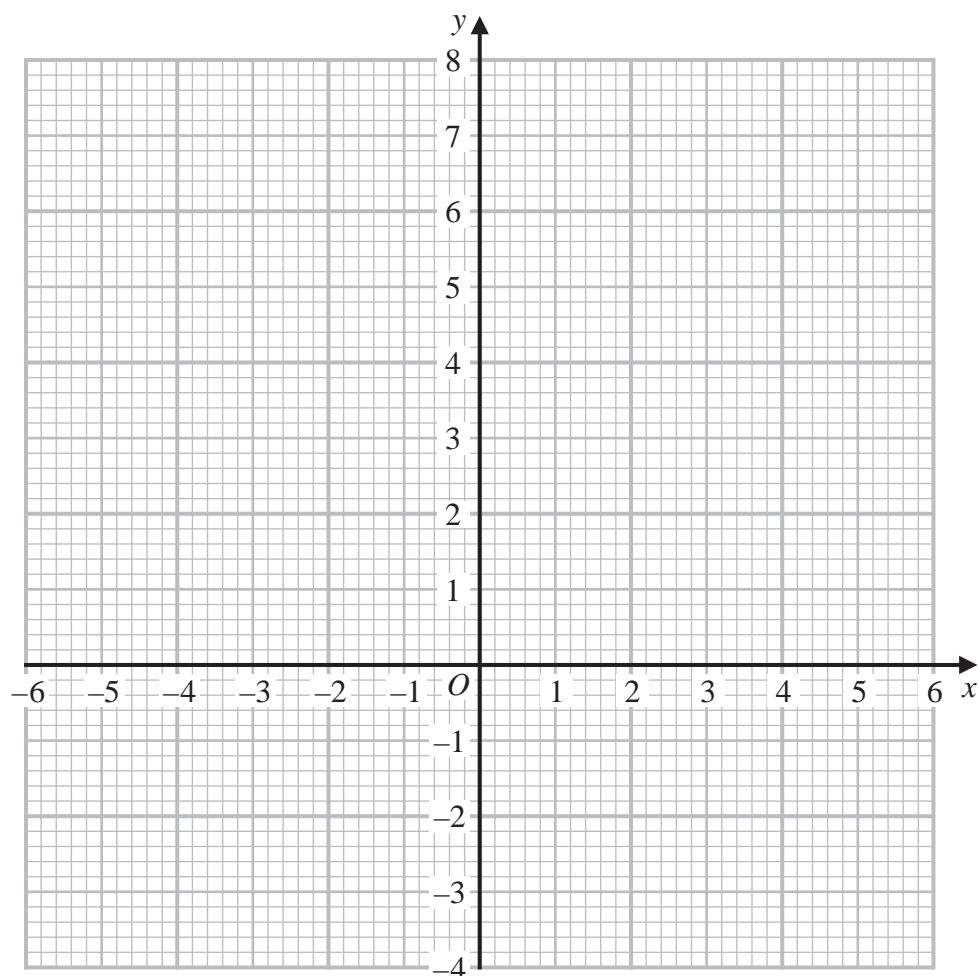
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Question 4 continued



Turn over for a spare grid if you need to redraw your graph.



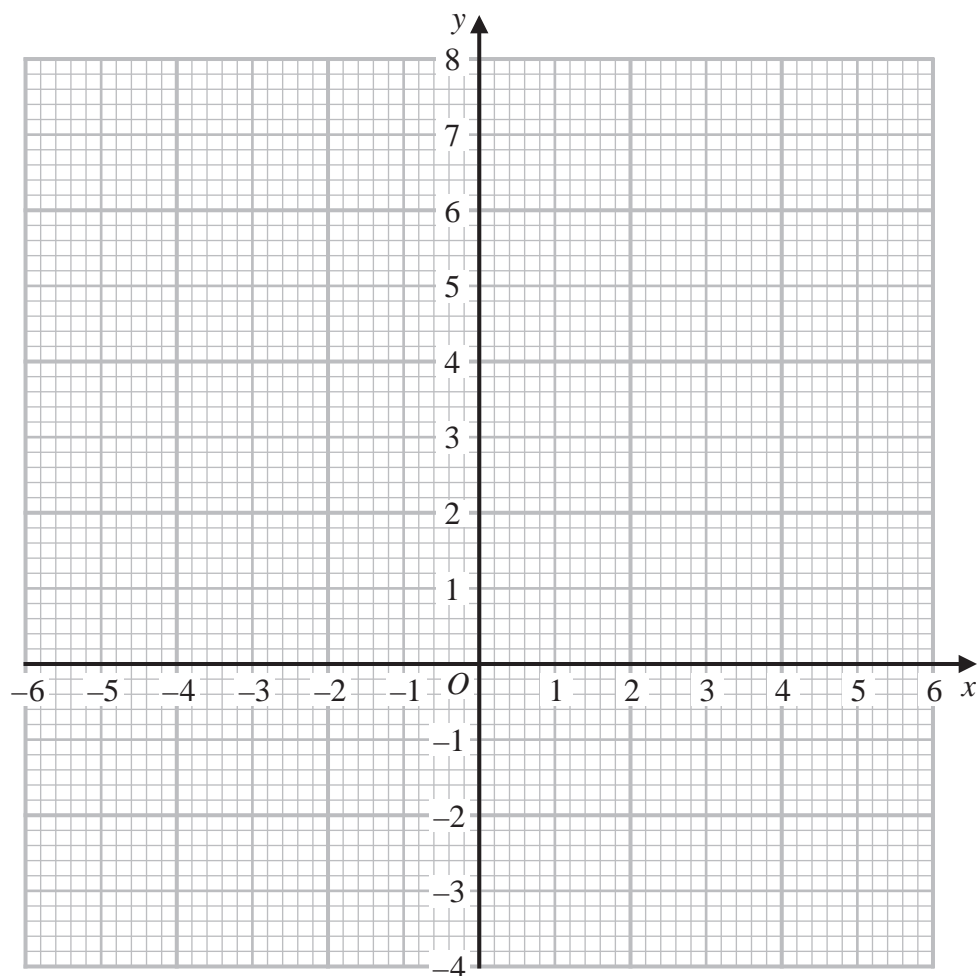
Question 4 continued

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Question 4 continued**Only use this grid if you need to redraw your graph.****(Total for Question 4 is 8 marks)**