

Answer all ELEVEN questions.

Write your answers in the spaces provided.

You must write down all the stages in your working.

- 1** (a) On the grid opposite, draw the graphs of the lines with equations

(i) $y = 2x$

(ii) $y = 6 - x$

(iii) $2y = x - 2$

(3)

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

$$y \leq 2x, \quad y \leq 6 - x, \quad 2y \geq x - 2, \quad y \geq 0$$

(1)

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

$$P = y + 2x$$

- (c) Find the greatest value of P .

(1)

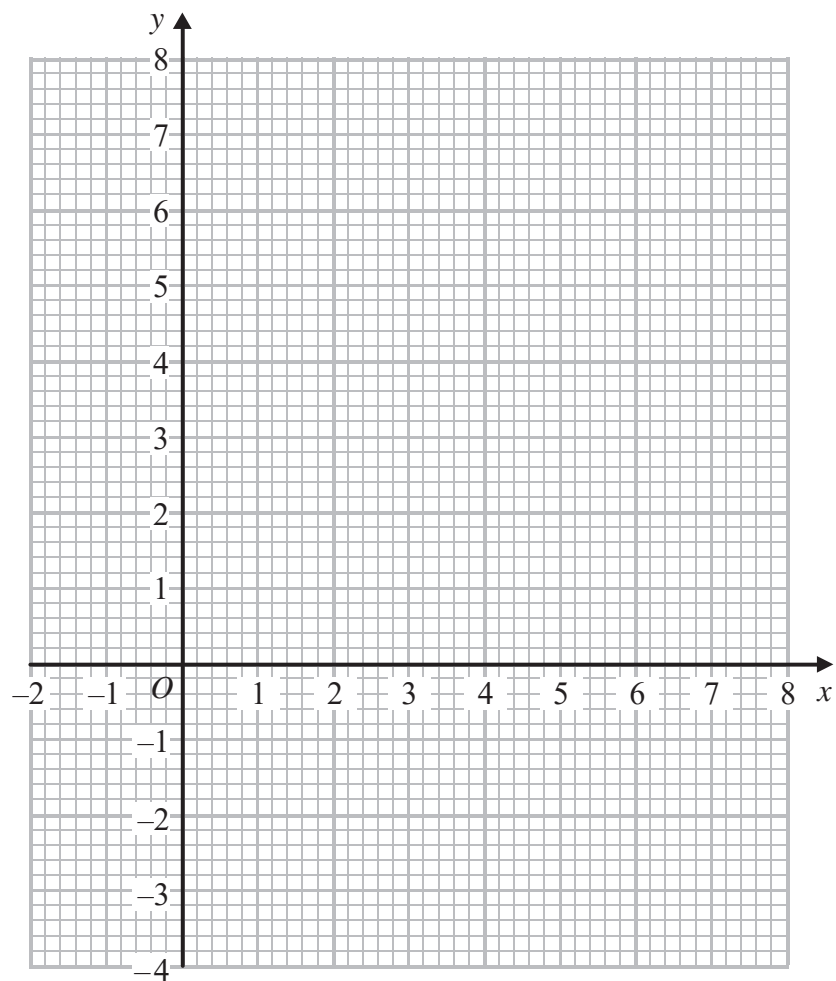
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Question 1 continued



(Total for Question 1 is 5 marks)



P 4 7 8 7 7 A 0 3 2 8