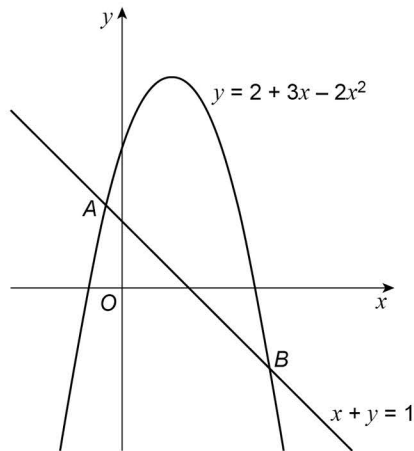


7 The graphs with equations

$$y = 2 + 3x - 2x^2 \text{ and } x + y = 1$$

are shown in the diagram below.



The graphs intersect at the points *A* and *B*

7 (a) On the diagram above, shade and label the region, *R*, that is satisfied by the inequalities

$$0 \leq y \leq 2 + 3x - 2x^2$$

and

$$x + y \geq 1$$

[2 marks]

7 (b) Find the exact coordinates of *A*

[3 marks]