



The diagram shows a rectangle  $ABCD$ , where  $A$  is  $(3, 2)$  and  $B$  is  $(1, 6)$ .

(i) Find the equation of  $BC$ .

[4]

Given that the equation of  $AC$  is  $y = x - 1$ , find

(ii) the coordinates of  $C$ ,

[2]

(iii) the perimeter of the rectangle  $ABCD$ .

[3]