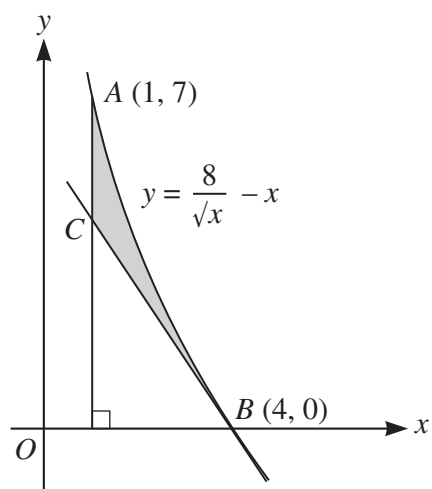


11



The diagram shows part of the curve  $y = \frac{8}{\sqrt{x}} - x$  and points  $A(1, 7)$  and  $B(4, 0)$  which lie on the curve. The tangent to the curve at  $B$  intersects the line  $x = 1$  at the point  $C$ .

(i) Find the coordinates of  $C$ . [4]

(ii) Find the area of the shaded region. [5]