

The diagram shows parts of the graphs of y = x + 2 and  $y = 3\sqrt{x}$  intersecting at points A and B.

(i) Write down an equation satisfied by the *x*-coordinates of *A* and *B*. Solve this equation and hence find the coordinates of *A* and *B*. [4]

[6]

(ii) Find by integration the area of the shaded region.