

10 A curve has equation $y = f(x)$ and it is given that $f'(x) = 3x^{\frac{1}{2}} - 2x^{-\frac{1}{2}}$. The point A is the only point on the curve at which the gradient is -1 .

(i) Find the x -coordinate of A .

[3]

(ii) Given that the curve also passes through the point $(4, 10)$, find the y -coordinate of A , giving your