

Higher Maths  
SQA 2016 Paper 2  
Question 9



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For a function  $f$ , defined on a suitable domain, it is known that:

- $f'(x) = \frac{2x+1}{\sqrt{x}}$
- $f(9) = 40$

Express  $f(x)$  in terms of  $x$ .

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Answer:

$$f(x) = \frac{4}{3}x^{\frac{3}{2}} + 2x^{\frac{1}{2}} - 2$$