## Higher Maths SQA 2016 Paper 2 Question 10



**10.** (a) Given that 
$$y = (x^2 + 7)^{\frac{1}{2}}$$
, find  $\frac{dy}{dx}$ .

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(b) Hence find 
$$\int \frac{4x}{\sqrt{x^2 + 7}} dx$$
.

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Answers:

(a) 
$$\frac{x}{\sqrt{x^2+7}}$$

(b) 
$$4\sqrt{x^2+7}+c$$