

Advanced Higher Maths  
SQA 2018 Paper  
Question 8



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Using the substitution  $u = \sin \theta$ , or otherwise, evaluate

$$\int_{\frac{\pi}{6}}^{\frac{\pi}{2}} 2 \sin^4 \theta \cos \theta \, d\theta.$$

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Answer:

$$\frac{31}{80} \text{ (or } 0.3875)$$