

Higher Maths
SQA 2017 Paper 2
Question 11



(a) Show that $\frac{\sin 2x}{2 \cos x} - \sin x \cos^2 x = \sin^3 x$, where $0 < x < \frac{\pi}{2}$. 3

(b) Hence, differentiate $\frac{\sin 2x}{2 \cos x} - \sin x \cos^2 x$, where $0 < x < \frac{\pi}{2}$. 3

Answers:

(a) Proof. See marking instructions.

(b) $3\sin^2 x \cos x$