2013 11c Differentiate $(\sin x - 1)^8$. **2**

Using the function of a function rule:

$$\frac{d}{dx}\left[(\sin x - 1)^8\right] = 8(\sin x - 1)^7 . \frac{d}{dx}(\sin x - 1)$$

$$= 8(\sin x - 1)^7 . \cos x$$

$$= 8 \cos x (\sin x - 1)^7$$

State Mean: **1.78**

Board of Studies: Notes from the Marking Centre

Most candidates completed this question correctly.

Common problems were:

- not differentiating $(\sin\theta - 1)$ correctly
- forgetting to write the power in their solution.

Source: http://www.boardofstudies.nsw.edu.au/hsc_exams/