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11 | **1d** | Differentiate ln(5x + 2) with respect to x.

State Mean: **1.56/2**

$$\frac{d}{dx}[\ln{(5x+2)}] = \frac{5}{5x+2}$$

Board of Studies: Notes from the Marking Centre

Many candidates did not use the chain rule and obtained $\frac{d}{dx}(\ln(5x+2)) = \frac{1}{5x+2}$.

Some treated the function as a product by inappropriately using $u = \ln v$, v = 5x + 2 and incorrectly obtained $u' = \frac{1}{x}$.

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

^{*} These solutions have been provided by *projectmaths* and are not supplied or endorsed by the Board of Studies