

12	11b	Differentiate $x^2 \tan x$ with respect to x .	2
$\frac{d}{dx} [x^2 \tan x] = 2x \cdot \tan x + x^2 \cdot \sec^2 x$			State Mean: 1.88/2

* These solutions have been provided by [projectmaths](http://projectmaths.com.au) and are not supplied or endorsed by the Board of Studies

Board of Studies: Notes from the Marking Centre

In better responses, candidates recognised and used the product rule correctly. In weaker responses, candidates seemed to be mostly confused by the $\tan x$ function, given that the previous question involved an inverse tan. In many weaker responses, candidates used some rather cumbersome algebra/identity processes unnecessarily, having achieved a correct answer in their first line of working.

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