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| **Topic 5: Calculus** | **Derivatives** | |
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| * 1. Using the definition of a derivative as , show that the derivative of is .   2. Using the same function, , find . Explain why this limit may be used as a better approximation that the limit used in part (a). | | (4 marks)     (4 marks) |
| Mark scheme: | | (M1)(A1)   (A1)       (A1)    (AG)  (A1)  (A1)  (A1)  (R1) |