



Want more revision exercises? Get [MathsFit HSC Extension 1](#) for \$2.95/topic - New from projectmaths

- 2015** **2** Given that $N = 100 + 80e^{kt}$, which expression is equal to $\frac{dN}{dt}$? **1**
- (A) $k(100 - N)$ (B) $k(180 - N)$ (C) $k(N - 100)$ (D) $k(N - 180)$

C

As $N = 100 + 80e^{kt}$, then $N - 100 = 80e^{kt}$.

$$\text{Now, } \frac{dN}{dt} = k \cdot 80e^{kt}$$

$$= k(N - 100)$$

State Mean:
0.93

* These solutions have been provided by [projectmaths](#) and are not supplied or endorsed by BOSTES.