

TG 8
ADIGiven $Q(x) = \int 8x^3 dx$, and $Q(0) = 5$, determine $Q(x)$.

$$Q(x) = \int 8x^3 dx$$

$$= 2x^4 + c$$

Substitute $Q(0) = 5$:

$$5 = 2(0)^4 + c$$

$$c = 5$$

$$\therefore Q(x) = 2x^4 + 5$$

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

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