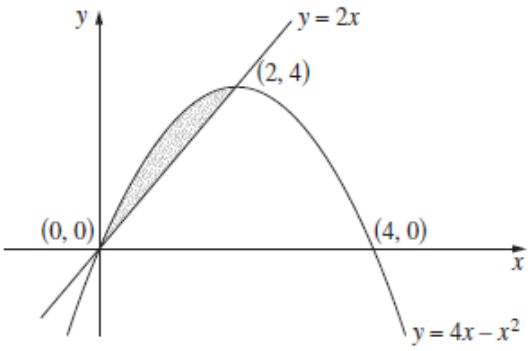
2015 **7** The diagram shows the parabola $y = 4x - x^2$ meeting the line $y = 2x$ at (0, 0) and (2, 4). Which expression gives the area of the shaded region bounded by the parabola and the line?



1

(A) $\int_0^2 x^2 - 2x \ dx$ (B) $\int_0^2 2x - x^2 \ dx$

(C) $\int_0^4 x^2 - 2x \ dx$ (D) $\int_0^4 2x - x^2 \ dx$

B

$$\text{Area} = \int_0^2 4x - x^2 - 2x \ dx$$

$$= \int_0^2 2x - x^2 \ dx$$

State Mean: **0.75**

* These solutions have been provided by *projectmaths* and are not supplied or endorsed by BOSTES.