

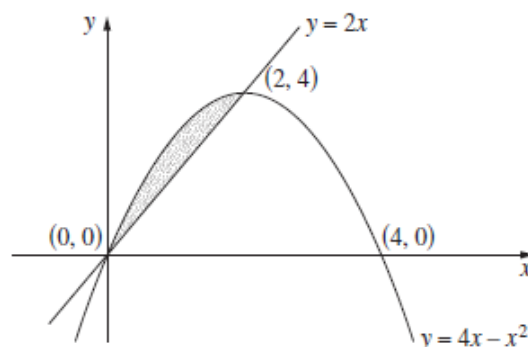


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- 2015 7** The diagram shows the parabola $y = 4x - x^2$ meeting the line $y = 2x$ at $(0, 0)$ and $(2, 4)$. Which expression gives the area of the shaded region bounded by the parabola and the line?

(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) $\int_0^4 2x - x^2 \, dx$



1

B

$$\begin{aligned} \text{Area} &= \int_0^2 4x - x^2 - 2x \, dx \\ &= \int_0^2 2x - x^2 \, dx \end{aligned}$$

State Mean:
0.75

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