

6.1 Areas between Curves

單選題

1. The **area** of the region bounded by the curves $y = e^{2x}$, $y = x$, $x = 0$, and $x = 1$ is

(A) $\frac{1}{2}e^2 - \frac{1}{2}$; (B) $\frac{1}{2}e^2 - 1$; (C) $e^2 - \frac{3}{2}$; (D) $e - \frac{3}{2}$.

Ans: B [102 學年度]

多選題

1. Which of the following integrals are the **area** enclosed by $y = x$ and $y^2 = x + 6$?

(A) $\int_{-2}^3 (y - y^2 + 6) dy$;

(B) $\int_{-6}^{-2} 2\sqrt{x+6} dx - \int_{-2}^3 (\sqrt{x+6} - x) dx$;

(C) $\int_{-2}^3 (y - y^2 - 6) dy$;

(D) $\int_{-6}^{-2} 2\sqrt{x+6} dx + \int_{-2}^3 (\sqrt{x+6} - x) dx$.

Ans: AD [100 學年度]