

7.7 Approximate Integration

多選題

1. Which of the following statements are **true** ?

(A) If f is continuous on $[0,1]$, then $\int_0^1 f(x)dx = \int_0^1 f(1-x)dx$;

(B) If $2 \leq f(x) \leq 4$ for $0 \leq x \leq 1$, then $1 < \int_0^1 f(x)dx < 5$;

(C) $\int_{-\frac{\pi}{4}}^{\frac{\pi}{4}} \frac{\tan x}{1+x^2} dx = \sqrt{3}\pi$;

(D) $\int_1^{e^{\ln(x^2)}} \frac{dx}{x} = 1$.

Ans: ABD [102 學年度]