

2.5 Continuity

單選題

1. Consider

$$f(x) = \begin{cases} x^3, & \text{if } x \text{ is rational,} \\ 0, & \text{if } x \text{ is irrational.} \end{cases}$$

Which of the following statements is **NOT TRUE**?

- (A) $f(x)$ is continuous at 0;
- (B) $f(x)$ is differentiable at 0;
- (C) $f(x)$ is integrable on $[-1,1]$;
- (D) $f\left(\frac{\pi}{6}\right) = 0$.

Ans: C [101 學年度]