Practice worksheet | Integration techniques and applications

# Definite integration

Name: _____ Date: _____

6 questions | 12 marks

**1.** Evaluate $\int_1^e \frac{1}{x}\,dx$. [2 marks]

**2.** Evaluate $\int_0^{\pi} \sin x\,dx$. [2 marks]

**3.** Evaluate $\int_1^2 (2x+1)\,dx$. [2 marks]

**4.** If $\int_2^5 f(x)\,dx = 7$, find $\int_5^2 f(x)\,dx$. [2 marks]

**5.** Explain why ordinary endpoint subtraction is invalid for $\int_{-1}^{1} x^{-2}\,dx$. [2 marks]

**6.** Evaluate $\int_{-1}^{1} (x^2 + 2)\,dx$. [2 marks]