Name:

Student ID #:

**Question**. Evaluate the following integrals:

(1)
$$\int (x^5 - 2x^3)\sqrt{x^2 + 1}\,\mathrm{d}x,$$

(2)
$$\int_2^4 \frac{\cos(\pi/x)}{x^2}\,\mathrm{d}x,$$

(3)
$$\int \frac{\tan(t)}{\cos(t)}\,\mathrm{d}t,$$

(4)
$$\int \frac{x^2 - x}{x^2 + 1}\,\mathrm{d}x$$

**Your Solution**.