



Name: \_\_\_\_\_

Instructor: Dr. R.A.G. Seely

Practice Test 3  
(version A3)

**Calculus II (Maths 201–NYB)**

1. Evaluate:

$$(a) \int \frac{x^2 + x + 1}{(x - 1)^2(x^2 + 1)} dx \quad (b) \int \sqrt{1 - 4x^2} dx$$

2. Does the following series converge absolutely or conditionally, or diverge?

$$\sum_{n=0}^{\infty} (-1)^n (\arctan(n + 1) - \arctan(n))$$