

13 Nov, 2014  
Total marks: 32  
MATH 1004, Section C/D

### TEST 4

1. Solve the integral [3 marks]

$$\int x \cos x \, dx$$

2. Solve the integral [5 marks]

$$\int x^3 e^x \, dx$$

3. Solve the integral [8 marks]

$$\int x^2 (\ln x)^5 dx$$

4. Solve the integral [5 marks]

$$\int x^2 \ln(x^5) \, dx$$

5. Solve the integral [5 marks]

$$2 \int \tan^{-1} x \, dx$$

6. Solve the integral [6 marks]

$$\int e^x \cos 4x \, dx$$