

Exercise Sheet 6

Hand in your work by 13 November.

Evaluate the following indefinite or definite integrals.

1. (Warm-up question*) $\int_{-1}^1 \cosh x \, dx$

2. $\int \frac{x}{1+x^2} \, dx$

3. $\int_0^{\frac{\pi}{4}} (\tan^2 x + \tan^4 x) \, dx$

4. $\int 3x^2 e^{-x} \, dx$

5. $\int \frac{x^3 + 1}{x^2 + 1} \, dx$

6. $\int \frac{2x + 3}{x^2 + 5x + 6} \, dx$

Solutions will be available after the hand-in date at:
<http://people.bath.ac.uk/rm257/MA10192/>

RM, 19/10/2017

*Do not hand in your work for this question.