MATH 4103 Homework 4 Due Tue, Feb 21, 2012

Sec. 18: problem 10(a,b) (page 56).

Sec. 20: problems 1, 2, 3, 6(b), 7, 8(b) (pages 62–63).

Sec. 23: problems 1(a,c), 2(a,b), 3(a,b) (pages 71–72).

Additional problem. Directly from the definition of a limit (generalized to include ∞), show that

(a) $\lim_{z\to 2i} \dfrac{1}{(z-2i)^3} = \infty$;

(b) $\lim_{z\to\infty} \dfrac{5}{z^2} = 0$.

Food for thought:[1] Sec. 20, problem 6.

[1] "Food for thought" problems are problems you should think about, but not turn in with the regular homework problems.