

**MATHEMATICS 3220. Homework # 3.**

1. §8.3, # 1 (a), # 2(a).

2. Compute the iterated limits at  $(0, 0)$  of the following function:

$f(x, y) = \frac{x^2 + y^4}{x^2 + 2y^4}$ . Determine if the limit

$$\lim_{(x,y) \rightarrow (0,0)} \frac{x^2 + y^4}{x^2 + 2y^4}$$

exists.

3. §8.4, # 1.