Math 208 Homework 10.

Problems from P.M. Fitzpatrick, Advanced Calculus.

Section 11.2, p.304: Problems: 1, 5, 10,
Section 11.3, p.309: Problems: 1, 2, 5,
Section 13.1, p.352: Problems: 1, 3, 4, 6, 9,

and the following problem:

Problem 1. Find the limit or show that it does not exist

1.
$$\lim_{(x,y)\to(0,0)} \frac{y\sin^2 x}{x^2 + 2y^2},$$

2.
$$\lim_{(x,y,z)\to(0,0,0)} \frac{xyz}{x^2 + y^2 + z^2},$$

3.
$$\lim_{(x,y,z)\to(0,0,0)} \frac{xyz}{x^3 + y^3 + z^3}.$$