Multivariable Calculus - Math 253, Section 102
Fall 2006

Section 15.4

6. $z = 2x + 2y + 1$.

12. $L(x, y) = \frac{1}{3}x - \frac{2}{3}y + 2$.

14. $L(x, y) = \frac{1}{4}x + y + \frac{5}{4}$.

17. $L(x, y) = -\frac{2}{3}x - \frac{7}{3}y + \frac{20}{3}$, $f(1.95, 1.08) \approx 2.84\bar{6}$.

28. $dw = (xz + 1)ye^{xz}dx + xe^{xz}dy + x^2ye^{xz}dz$.

32. Error in the surface area $dS \leq 152$ cm^2.

34. $dV \approx 8.8$ cm^3.

38. Error in the product $dp \leq 25,000$.