Comments on Colley, Chapter 8

There are many places in the sciences and engineering where it is necessary or useful to consider functions of more than three variables. The objective of Chapter 8 in the course text is to describe the standard mathematical framework for extending the methods and results of vector analysis to such functions. A second objective is to provide unified statements which include the Fundamental Theorem of the Calculus, Green's Theorem, Stokes' Theorem and the Divergence Theorem all as special cases. This material is not covered in Mathematics 10B, but there are many places in mathematics, physics and their applications where this general approach plays an important role.