1. Let $C$ be the triangle given by $A = (0,0), B = (0,1), C = (1,1)$. View $C$ as a directed simple curve with counterclockwise orientation. Compute $\int_C \mathbf{F} \cdot d\mathbf{s}$
   (a) with $\mathbf{F}(x,y) = (\sin(x)y, -yx)$,
   (b) and $\mathbf{F}(x,y) = \nabla f(x,y)$ where $f(x,y) = e^{\sqrt{x}} \sin(x \cos(y))$.

2. p. 448, problems 7 (for $n = 1$ and $n = 2$), 9, 12.

3. p. 449, problems 14, 16.

4. p. 459, problems 1, 2, 4, 5, 7, 8.

5. Find a parametrization for the sphere of radius 4.

6. p. 459, problem 13 (a) – (c)

7. p. 459, problem 14 (for (b) and (c) recall methods from previous chapters),