

## Homework Assignment for Week 15

1. Section 16.1: Problems 15, 23, 25, 29.
2. Section 16.2: Problems 19, 25, 29(b), 35(a).
3. Section 16.3: Problems 1, 3, 5, 9, 21, 26, 29.

See equation (5) in p932 and (6) in p934 for definition of flow, circulation and flux.

Hint: For problems 1, 3, 5, use Component Test on p943. For problem 29: do not evaluate the line integrals directly. Try to find the potential function  $f$  for the vector field  $\mathbf{F}$  instead.