Selected solutions for worksheets from Math 53 (U.C. Berkeley's multivariable calculus course).

# 25. Line Integrals

## Questions

2.

Replacing  ${\bf F}$  with  $-{\bf F}$  changes each integral of  $F_i$  to its negative.

3.

Replacing C with C' changes each  $\frac{dx_i}{dt}$  to its negative, so the whole thing is replaced with its negative.

## Problems

#### 2.

All are equal to  $\sqrt{2}$ .

#### 3.

All are equal to 0.