

**18.02 $\rho$       Problem Set 7**  
**(Due Tuesday, November 8, 11:59:59 PM)**

**Part I   (100 points)**

HAND IN ONLY THE UNDERLINED PROBLEMS

(The others are *some* suggested choices for more practice.)

EP = Edwards and Penny; SN = Supplementary Notes (most have solutions)

**Vector fields, curl, divergence**

Reading: EP §15.1, SN §§V1, V8

Exercises:

EP §15.1 11-14, 22, 28, 31, 32, 34, 36, 37, 38, 39

SN §6A 4

**Line integrals in the plane and in space**

Reading: EP §15.2, SN §V11

Exercises:

EP §15.2 5, 8, 11, 12, 13, 18, 31, 33

SN §6D 2, 6

**Path independence and conservative fields**

Reading: EP §15.3, SN §§V2, V11

Exercises:

EP §15.3 3, 6, 11, 30, 31, 35

**Gradient fields and potential functions**

Reading: EP §15.3, SN §V12

Exercises:

EP §15.3 17, 23, 25, 34

SN §4C 2, 3

SN §6E 4, 6