

## Problem Set 2 (due Tuesday Sept. 22)

You may discuss the problems with your classmates but you must write your own solutions. Be clear and to the point. Page numbers refer to the text “Variational methods in Optimization” by Donald R. Smith .

p27: 1,2,4,5

(Hint for 2: use  $a^3 - b^3 = (a - b)(a^2 + ab + b^2)$  to estimate  $|J(\phi) - J(\psi)|$ ).

p.29: 2

p.40: 1,2,3,5