

IE 631          Integer Programming HW 2          ( due : 2018/ 10/10, Wed. in class)

Handout (Bertsimas and Weismantel) #1.16, #1.17, #1.18, #1.19, #1.20, #1.22

#1.21(for extra credit)

1. Show that the LP relaxation of the formulation (1.4) for the pigeon hole principle is infeasible.
2. Let  $X \subseteq R^n$  be the set of feasible solutions to an MIP. Show that the extreme points of  $\text{conv}(X)$  all lie in  $X$ .