

Analytical Techniques

Professor Eckstein

Solutions to Second Test Practice Questions

1 Staffing an office

- (a) $B11 = \text{PARAMETER}(\{3,4,5,6\},1, \text{"Workers Hired"})$
- (b) $B13 = \text{GENPOISSON}(B1)$
- (c) $B14 = \text{GENBINOMIAL}(B13,B2)$
- (d) $B15 = \text{SUMPRODUCT}(B3:B4,B13:B14)/60$
- (e) $B17 = \text{MIN}(B15, B5*B11)$
 $B18 = \text{MIN}(B15 - B17, B7*B11)$
 $B19 = B15 - B17 - B18$
- (f) $B21 = \text{SIMOUTPUT}(B6*B11 + B8*B18 + B9*B19, \text{"Total Cost"})$
- (g) 5 workers (scenario 3)

2 Chickens and Eggs

- (a) $B9 = \text{PARAMETER}(D16:D26,1,A9)$
- (b) $B11 = \text{GENTABLE}(D2:D12,E2:E12)$
- (c) $B12 = \text{GENBINOMIAL}(B11,B2)$
- (d) $B13 = B3*B12$
- (e) $B14 = \text{GENBINOMIAL}(B9,B4)$
- (f) $B15 = \text{MIN}(B13,B14)$
- (g) $B16 = B13 - B15$
- (h) $B17 = B14 - B15$
- (i) $B19 = B5*B9$
 $B20 = B16*B6$
 $B21 = B17*B7$
- (j) $B22 = \text{SIMOUTPUT}(B19 + B20 - B21,A22)$
- (k) 15 chickens (scenario 6)