General Mathematics and Computational Science I

Exercise 7

October 17, 2006

1. In how many ways can you write the number 4 as the sum of 5 nonnegative integers?
2. (From Ivanov, p. 21.) Prove the inequality

$$\binom{n}{k} \leq \binom{n}{[n/2]}$$

for $k = 0, \ldots, n$.