

Homework 4

Math 262

Write your solutions to the following problems and turn them in to the homework mailbox (RMS level 3, near the fireplace) by 4:00pm on Wednesday, February 28.

Book Problems

- Section 1.4 #76 (page 42)
- Section 1.5 #81, 88, 91, 93 (pages 47–50)
Note: #88 has two possible answers
- Section 1.6 #101a (page 56)

Additional Problems

1. Show that $\binom{n}{k} = \binom{n-1}{k-1} + \binom{n-1}{k}$, where $1 \leq k \leq n$.
2. A total of n independent tosses of a coin that lands on heads with probability p are made. How large need n be so that the probability of obtaining at least one head is at least $\frac{1}{2}$? (The answer depends on p , of course.)