

HOMEWORK 6
Math 104B - Dr. Evans
UCSD Spring 2004
Due Thursday, May 27

1. Prove the following statement:

$$\sum_{m=0}^{p-1} \binom{m}{p} \binom{1-m}{p} = \begin{cases} -1 & \text{if } p \equiv 1 \pmod{4} \\ 1 & \text{if } p \equiv 3 \pmod{4} \end{cases}$$

2. Problem 165 from the book.

3. Problem 145(ii) from the book.

Reading Assignment

Read section 4.1. You may skip anything with double sums in it. You may also skip section 4.2. Read sections 4.3 through 4.5. This should cover through the end of the class.