

**MA415 Homework #3**  
**Due Friday, September 16**

1. Read Chapter 1 from the History of Graph Theory that I emailed out earlier. Goal: Read Euler's article by Wednesday, and the rest of the chapter by Friday.
2. Read pages 51–60 of the textbook.
3. Be prepared to discuss the solutions to problems 1–4 on page 54 in class—I will not be collecting these solutions, though, so you don't have to write them up formally.
4. Submit the solutions to problems 1, 3, 4, 7 on pages 58–60.
5. Starting at the point  $(0, 0)$  in the Cartesian plane, how many walks are there to the point  $(m, n)$ , where each step must be either one unit to the right (increasing the first coordinate by one) or one unit upward (increasing the second coordinate by one). Justify your answer.