

**MATH 113: DISCRETE STRUCTURES**  
**WEDNESDAY WEEK 1 HANDOUT**

*Question 1.* In how many distinct ways can the letters in the word MISSISSIPPI be arranged?

*Question 2 (Monotonic paths, redux).* In how many distinct ways can  $n - 1$  R's and  $k - 1$  U's be arranged? What does this have to do with monotonic paths on an  $n \times k$  grid?