Last name _____

First name _____

LARSON—MATH 350—CLASSROOM WORKSHEET 20
Bracketings & Dyck Paths

Organizational Notes

1. A Zoom recording link and class notes will be sent out after each class.

2. Remember to send your answers to the classroom worksheets. Title your email with enough to help me record your "participation".

Review

1. What is a *bracketing* of a string of $n+1$ x's?

Parenthesization/Bracketing

1. Can you conjecture the number of bracketings of strings with $n+1$ x's?

2. How can you *prove* this conjecture?

Dyck Paths

3. What is a *Dyck path*?

4. How many Dyck paths are there with 2 steps?

5. How many Dyck paths are there with 4 steps?

6. How many Dyck paths are there with 6 steps?

7. How many Dyck paths are there with 8 steps?

8. Can you conjecture the number of Dyck paths with $2n$ steps?

9. How can you *prove* this conjecture?