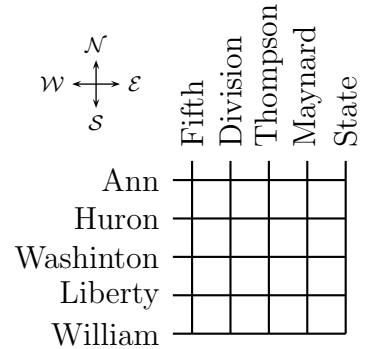
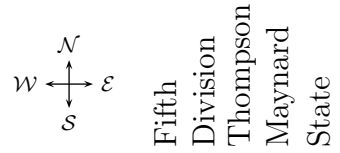


Worksheet Seek, and Ye Shall Find

1. A small section of downtown Ann Arbor is shown to the right. Copy the map onto the board.



- (a) Suppose Myrka lives at the corner of Washington and Thompson, and she needs to get to class at Mason Hall, which is at State and William. She doesn't want to walk out of her way, so she will only go east and south. Still, she has some choices. How many ways are there to get to class?

- (b) Interesting, I wonder what that number means? Write your answer to part (a) at the corner of Washington and Thompson. Now pick a different starting corner, and figure out how many ways there are to get to class from there. Repeat, writing your answers on the board at the relevant corner.

- (c) What's the pattern?

- (d) Explain why the pattern must continue to hold, no matter how big the city is.