Math 174,   Fall 2003,   Solution to Quiz 6

Problem: Three officers — a president, a treasurer, and a secretary — are to be chosen from among four people: Ann, Bob, Cyd, and Dan. Suppose that Bob is not qualified to be treasurer and Cyd's other commitments make it impossible for her to be secretary. How many ways can the officers be chosen?

Answer: Pick the secretary, then the treasurer, then the president. The options are:

secretary	treasurer	president
A	C	B
A	C	D
A	D	C
A	D	B
B	A	C
B	A	D
B	C	A
B	C	D
B	D	A
B	D	C
D	A	B
D	A	C
D	C	A
D	C	B

There are 14 possibilities.