Name:

Section 6.2
Assume there is a club with 7 girls and 8 boys.

1. In how many ways can the members line up for a photograph?
2. In how many ways can a President, Vice-President, Secretary and Treasurer be elected assume no one holds more than one position?
3. In how many ways can $\mathrm{P}, \mathrm{VP}, \mathrm{S}$ and T be elected such that girl 1 is P or boy 1 is VP?
4. In how many ways can the club form a committee of 5 people?
5. In how many ways can the club form a committee of 2 girls and 2 boys?
6. In how many ways can the club from a committee of 4 people that contains at least one boy?
7. In how many ways can the club from a committee of 4 people that contains at most one boy?
8. In how many ways can the club form a committee of 4 people that contains at least one boy and at least one girl?
9. In how many ways can the club form a committee of 4 people such that boy 1 and boy 2 do not have to serve together?
