Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Write down the SOR method in the general matrix form.
2. The SOR method is convergent under what conditions?
3. How do we **define** the optimal accelerating parameter ω?
4. Can we easily **calculate** the optimal accelerating parameter ω?
5. What is the essence of the Red-Black ordering?
6. If we solve a 2-D problem with *N*×*N* mesh nodes (points), the number of iterations needed, *k*, is proportional to what power of *N*  
   for Gauss-Seidel, , *p* = ?  
   for SOR, , *p* = ?