

Chapter 9 Problems:

2. The main advantage of this method is the fast accesses to formal parameters in subprograms. The disadvantages are that recursion is rarely useful when values cannot be passed, and also that a number of problems, such as aliasing, occur with the method.

5. Assume the calls are not accumulative; that is, they are always called with the initialized values of the variables, so their effects are not accumulative.

- | | | |
|---------------------|---------------------|--|
| a. 2, 1, 3, 5, 7, 9 | b. 1, 2, 3, 5, 7, 9 | c. 1, 2, 3, 5, 7, 9 |
| 2, 1, 3, 5, 7, 9 | 2, 3, 1, 5, 7, 9 | 2, 3, 1, 5, 7, 9 |
| 2, 1, 3, 5, 7, 9 | 5, 1, 3, 2, 7, 9 | 5, 1, 3, 2, 7, 9 (unless the addresses of the actual parameters are recomputed on return, in which case there will be an index range error.) |