1. Here is an array with exactly 15 elements:

   ```
   1   2   3   4   5   6   7   8   9   10   11   12   13   14   15
   ```

   Suppose that we are doing a sequential search for an element. Circle any elements that will be found by examining two or fewer numbers from the array.

2. Here is an array with exactly 15 elements:

   ```
   1   2   3   4   5   6   7   8   9   10   11   12   13   14   15
   ```

   Suppose that we are doing a binary search for an element. Circle any elements that will be found by examining two or fewer numbers from the array.

3. Draw a hash table with open addressing and a size of 9. Use the hash function "k%9". Insert the keys: 5, 29, 20, 0, 27 and 18 into your table (in that order).
4. Suppose that an open-address hash table has a capacity of 811 and it contains 81 elements. What is the table's load factor?
5. What is the worst-case time for serial search finding a single item in an array?
    1. A. Constant time
    2. B. Logarithmic time
    3. C. Linear time
    4. D. Quadratic time
6. What is the worst-case time for binary search finding a single item in an array?
    1. A. Constant time
    2. B. Logarithmic time
    3. C. Linear time
    4. D. Quadratic time
7. What additional requirement is placed on an array, so that binary search may be used to locate an entry?
    1. A. The array elements must form a heap.
    2. B. The array must have at least 2 entries.
    3. C. The array must be sorted.
    4. D. The array's size must be a power of two.
8. A chained hash table has an array size of 512. What is the maximum number of entries that can be placed in the table?
    1. A. 256
    2. B. 511
    3. C. 512
    4. D. 1024
    5. E. There is no maximum.

9. Suppose you place m items in a hash table with an array size of s. What is the correct formula for the load factor?
    1. A. s + m
    2. B. s - m
    3. C. m - s
    4. D. m * s
    5. E. m / s