

Name: _____

3. For the following piece of code create a white-box and a black-box test. The function adds the item passed in to the specified end of the list. If no end is specified a default value is used. The size of the list is returned. Use the back of another page if necessary.

```
globals/class variables:
0  int DefaultValue, FRONT, BACK, size, maxsize, fptr, bptr; void **array;
1  int list_add (Item *item, int side) {
2      if (size >= maxsize) throw ListFull;
3      size++;
4      if (side == 0) side = DefaultValue;
5      switch (side) {
6          case FRONT: fptr = (fptr - 1) % maxsize;
7                      array[fptr] = item;
8                      break;
9          case BACK:
11         default: bptr = (bptr + 1) % maxsize;
12                 array[bptr] = item;
13                 break;
14     }
15     return size;
16 }
```

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4. Express as unambiguously as possible a test case write-up for one of the tests in the previous problem.

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5. (a) What are the purpose of copyright and patent laws? How do the laws attempt to achieve this goal?
- (b) What purpose does a code of ethics serve in society? Name three points of the IEEE or ACM code of ethics and describe their relevance to your professional conduct.

6. (a) How does the clean room process model differ from the incremental model.
- (b) How is testing different in the clean room model?