Do You Know?

Set 3:

1. How would you access the row value for loc1?

Loc1.getRow();

1. What is the value of b after the following statement is executed: boolean b = loc1.equals(loc2);

False.

1. What is the value of loc3 after the following statement is executed: Location loc3 = loc2.getAdjacentLocation(Location.SOUTH);

(4,4)

1. What is the value of dir after the following statement is executed: int dir = loc1.getDirectionToward(new Location(6, 5));

135 deg. SE

1. How does the getAdjacentLocation method know which adjacent location to return?

The parameter indicates its direction of its adjacent tile. Refer to #3.

DYK:

Set 4:

1. How can you obtain a count of objects in a grid? How can you obtain a copy of the empty locations in a bounded grid?

Grid g = new Grid(<some arguments>);

g.getOccupiedLocations().size() will return how many occupied locations there are,

g.getNumRows() \* g.getNumCols() – g.getOccupiedLocations().size() will return how many EMPTY locations there are.

1. How can you check if (10,10) is valid on the grid?

The method isValid returns true if it is a true location.

1. Grid contains method declarations, but no code supplied in the methods. Why? Where can you find the implementation of these methods?

Grid is an interface, so all the methods must be extended; they are extended by the AbstractGrid, BoundedGrid, and UnboundedGrid classes.

1. All methods that return multiple objects return them in an ArrayList. Do you think it would be a better design to return the objects in an array? Explain your answer.

I do not, because ArrayLists are much more versatile in that they can be added dynamically, removed dynamically (arrays can’t really have elements “removed”, necessarily).