A Robot object’s default initial conditions are to start at (1, 1) facing east with zero beepers. If you don’t want the default settings, you may specify the x-coordinate, y-coordinate, direction, and number of beepers. For instance:

Robot ophelia = new Robot(); **//calls the *default constructor***

Robot horatio = new Robot(5, 4, Display.SOUTH, 37); **//calls the *4-arg constructor***

1) What does ophelia know? What does horatio know? What do both robots know?

Robot Ophelia knows that it is a new robot that starts in the original position (1, 1) facing east with zero beepers. Robot horatio knows that it is a new robot that starts in position (5, 4) facing south with 37 beepers.

2) Write the command to create a robot named pete starting at (4, 3) facing west with 50 beepers.

Robot pete = new Robot(5, 4, Display.West, 50);

3) Complete the main method to have lisa move one block, put down a beeper, then move another block. Since we have not set-up a specific map, the *default robot-map* will be used. The default map is empty except for the two infinite-length walls on the southern and western edges.

**public static void** main (String[] args)

{

Robot lisa = **new** Robot(7, 7, Display.SOUTH, 15);

lisa.move();

lisa.putBeeper();

lise.move();

}

4) Complete the main method to have martha move forward five blocks and “hand-off” her beeper to george. Have george move forward two blocks and put the beeper down.

**public static void** main (String args[])

{

Robot martha = **new** Robot(1, 1, Display.NORTH, 1);

Robot george = **new** Robot(1, 6, Display.EAST, 0);

karel.move();  
 karel.move();  
 karel.move();  
 karel.move();  
 karel.move();  
 karel.putBeeper();  
 george.pickBeeper();  
 george.move();  
 george.move();  
 george.putBeeper();

}

**5) Question #3 has no Display.openWorld. In that case, what map is used?**

It will display the default map which is empty except for two infinite lines on the southern and western edges.