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| **APCS Exposure Java** | **GWExercises02** | **Date:** |
| **Name:** | | **Period:** |

**Execute the GridWorldLab02 project, click RUN and observe the grid display.**

1. How can you determine the available methods of a GridWorld object?

**In questions 2-5 you will be listing methods. You only need to list the name of the method.**

**Example: instead of info.gridworld.grid.Location getLocation, just list getLocation.**

2. List all of the **Actor** methods.

3. List all of the **Bug** methods.

4. List all of the **Flower** methods.

5. List all of the **Rock** methods.

6. What methods do the four classes have in common?

7. What happens if you move the mouse pointer on top of an empty cell, but do not click on it?

8. What happens if you move the mouse pointer on top of an object in the grid, but do not click on it?

9. What happens if you use the **moveTo** method to move an object to a **Location** where another object already exists?

10. What happens if you use the **moveTo** method to move an object to **Location (10,10)** ?

11. What happens if you use the **moveTo** method to move an object to **Location (-1,-2)** ?

12. Look at your answers to previous 2 questions. They should be the same.

Why did this result occur in both cases?

13. Which direction do **Bug** objects face when they are first created?

14. If you click on a **Bug** object and select the **turn** method, how many degrees does it turn?

15. Refer to the previous two questions.

How many times would a **Bug** object need to be **turn**ed so that it faces the same direction it initially did when it was first created?

16. Which of these classes: **Actor**, **Bug**, **Flower** or **Rock**

will not let you specify a color when creating a new object from that class?

17. Refer to the previous question. Even though object of that class cannot be created with anything but the default color, is there a way to change the object’s color after it is created? If so, how?

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| 18. Look at the GridWorld execution to the right.  If the **Step** or the **Run** button were to be clicked,  would there be more objects in the grid, or less?  Explain your answer. |  |