## Part1作业

1. Does the bug always move to a new location? Explain.

只有当单元格存在且为空或其中有一朵花时，错误才会移动到它前面的位置

2. In which direction does the bug move?

向其前方前进

3. What does the bug do if it does not move?

它会向右转45度。

4. What does a bug leave behind when it moves?

在它的走过的cell中留下一朵花，花和虫子的颜色一样。

5. What happens when the bug is at an edge of the grid? (Consider whether the bug is facing the edge as well as

whether the bug is facing some other direction when answering this question.)

如果在网格边缘，它将向右转45度。当再按step时，它将会再向右转45度。再次按step时，它会向前移动，并在原来的位置留下花。

6. What happens when a bug has a rock in the location immediately in front of it?

向右转45度。

7. Does a flower move?

不会

8. What behavior does a flower have?

花的颜色会越来越深

9. Does a rock move or have any other behavior?

不会有任何行为.

10. Can more than one actor (bug, flower, rock) be in the same location in the grid at the same time?

不能，只能由一个

1. Test the setDirection method with the following inputs and complete the table, giving the compass

direction each input represents.

|  |  |
| --- | --- |
| **Degrees** | **Compass Direction** |
| 0 | 北 |
| 45 | 东北 |
| 90 | 东 |
| 135 | 东南 |
| 180 | 南 |
| 225 | 西南 |
| 270 | 西 |
| 315 | 西北 |
| 360 | 北 |

2.Move a bug to a different location using the moveTo method. In which directions can you move it? How far can you move it? What happens if you try to move the bug outside the grid?

可以移动到任何位置，但是其方向不变。产生异常，报错

Change the color of a bug, a flower, and a rock. Which method did you use?

Setcolor函数

1. Move a rock on top of a bug and then move the rock again. What happened to the bug?

虫子会消失，移走石头后虫子也不会出现