

1. Does the bug always move to a new location? Explain.
No. When it encounters boundary or a rock, it stays in the same location.
2. In which direction does the bug move?
Initially, the bug faces north. And it turns 45 degrees clockwise when it can't move forward.
3. What does the bug do if it does not move?
Turns 45 degrees clockwise.
4. What does a bug leave behind when it moves?
Flower footprint.
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.)
If it is facing the edge at 90 degree or 45 degree, it turns 45 degrees clockwise. Otherwise, it goes ahead.
6. What happens when a bug has a rock in the location immediately in front of it?
It turns 45 degrees clockwise.
7. Does a flower move?
No, but its fading effect looks like it's moving.
8. What behavior does a flower have?
Fades out when the bug moves away.
9. Does a rock move or have any other behavior?
No.
10. Can more than one actor (bug, flower, rock) be in the same location in the grid at the same time?
Yes. When one bug turns, another may come into the same location.

By clicking on a cell containing a bug, flower, or rock, do the following.

1. Test the setDirection method with the following inputs and complete the table, giving the compass direction each input represents.

Degrees	Compass Direction
0	North

45	Northeast
90	East
135	SouthEast
180	South
225	Southwest
270	West
315	Southwest
360	North

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?

Any direction that exists an available grid. At most $(9 * 2^{0.5})$ grid for bounded grid, don't know for unbounded grid. It raises an exception.

3. Change the color of a bug, a flower, and a rock. Which method did you use?
`void setColor(java.awt.Color)`

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

It disappeared.