Do You Know?
Set 1
1. Does the bug always move to a new location? Explain.
No, when every direction has a rock blocking it, it stay.

2. In which direction does the bug move?
Clockwise.

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

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

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.)
Facing edge: Circling clockwise until it could go forward.
Other direction: Go forward.

6. What happens when a bug has a rock in the location immediately in front of it?
Circling clockwise until it could go forward.

7. Does a flower move?
No.

8. What behavior does a flower have?
1. changing color depends on the distance between it and the bug who leave the flower.

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?
No.

Exercises

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	east-north
90	east
135	east-south
180	south
225	west-south
270	west
315	west-north
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?

1 every directions 2 inside the grid 3 throw java.lang.IllegalArgumentException

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

setColor

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

Disappear.