Set 1

- 1. No.The bug only change its direction when it meet some barrier such as wall and rock.So in the first screen the rock and the wall make the bug move in a circle.
- 2. The bug default turn the northeast of itself.
- 3. When the bug meet the barrier it will stop and change it's direction first.
- 4. It will put on a red flower.
- 5. When the bug is facing to the edge of the grid, it will change it's direction until it can move. When the bug is facing some other direction, if there is no place for it to move, it will change it's direction until it can move.
- 6. The bug will turn northeast of itself until it can move.
- 7. No.
- 8. The flower will change its color from red to black after the bug left.
- 9. No.The rock only stop at the same position.
- 10.Yes.It can.

Set 2

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 Northwest
- 90 West
- 135 Southwest
- 180 South
- 225 Southeast
- 270 East
- 315 Northeast
- 360 North
- 2.It can move to anywhere in the grid $((0, 0)\sim(9, 9))$.If it move outside the grid, it will report it is not valid.
- 3.Select the method void setColor(java.awt.color) and select the color you want.
- 4. The bug will disappear and only the rock can be moved.