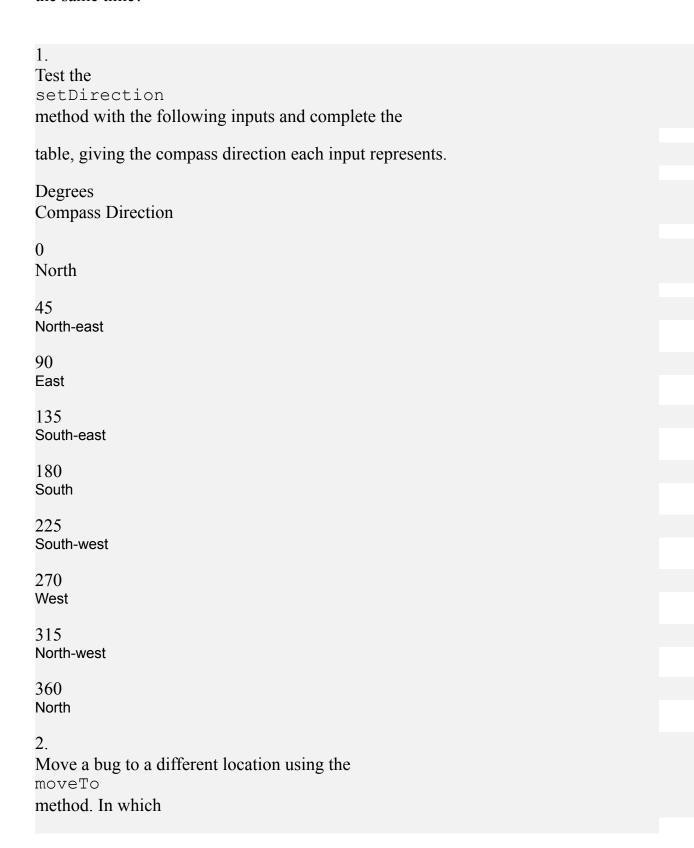Set 1

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

No, for the condition that a bug cannot move forward again, it turns 45 degrees/

2. In which direction does the bug move?

Forward the way it is facing

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

It turns 45 degrees

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

A flower

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 the bug is facing the edge, the bug turns until it is not. If it is not facing the edge, it keeps going along the edge.

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

The bug turns until the rock is no longer preventing the bug from moving forward

7. Does a flower move?

No

8. What behavior does a flower have?

When a bug creates a flower or goes over a flower, the flower becomes the color of the bug, and it fades in color a little after every step.

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

Rocks block bugs, causing them to turn to move more.

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

Only bugs and flowers can be on the same location at the same time.

the same time?

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	North-east
90	East
135	South-east
180	South
225	South-west
270	West
315	North-west
360	North

2.
Move a bug to a different location using the
`moveTo`
method. In which

directions can you move it? Any direction How far can you move it? Anywhere on the grid What ha

move the bug outside the grid? The program throws 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?
The bug dissapears