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GridWorld Parts 1 and 2

Follow through the GridWorld Activities described in the GridWorld Case Study Student Manual with Appendixes doc found on Canvas.

The only written responses you need to provide are on this document.

1. Without looking at the code, what methods do Bug, Flower, and Rock inherit from the Actor class?

void act()

int getColor()

int getDirection()

Grid getGrid()

void removeSelfFromGrid()

void setDirection()

void setColor()

Location getLocation()

void moveTo()

String toString()

2. Looking at the list above, what instance variables must be inherited from Actor, as well?

int color

int direction

Grid grid

Location location

BoxBug:

3. Why can the move method be called in the BoxBug class when there is no move method in the BoxBug code?

BoxBug inherits the move method from the Actor class

4. Without changing code, can a BoxBug make boxes of a different side length than the one it started making?

No, the box the BoxBug makes is always a perfect square

5. Will the BoxBug always travel the same path? Why or why not?

After it finds an initial square, it will never leave the path traced by the square

6. When will the value of steps be 0?

when the boxbug reaches a corner

Making new types of bugs.

As explained on pages 13 – 15, make CircleBug, SpiralBug, ZBug and DancingBug along with their runner classes. Zip these up and submit them along with this doc. Don’t get hung up on making all 4 of these classes if you are having trouble, but at least get one of the first two done and one of the second two. All four, if you want the 4. Or if you have a really good dance routine for the DancingBug, that can count as doing all 4 of them! (I’m talking more than just a simple turn.)