QUICK REFERENCE FOR ARRAYLIST AND COLOR

Selected methods from ArrayList<SomeClass>:

```
    add(SomeClass newElement)
    get(int index)
    isEmpty()
    remove(int index)
    remove(SomeClass elementToRemove)
    set(SomeClass elementToSet)
    size()
```

Selected Color objects provided by Java:

```
    Color.RED, Color.ORANGE, Color.YELLOW,
    Color.GREEN, Color.BLUE, Color.GRAY
```

QUICK REFERENCE FOR GRID PACKAGE CLASSES

Selected methods from BoundedGrid:

```
    public BoundedGrid(int rows, int cols)
        -- Constructs an empty grid with the specified dimensions.
    public BoundedGrid(boolean includeDiagonalNeighbors, int rows, int cols)
        -- Constructs an empty grid with specified dimensions; if
    public int numRows()  -- Returns number of rows in grid.
    public int numCols()  -- Returns number of columns in grid.
    public boolean isValid(Location loc) -- Returns true if loc is valid
        in this grid; otherwise returns false.
    public boolean isEmpty(Location loc) -- Returns true if loc is a
        valid location in the context of this grid and is empty;
        otherwise returns false.
    public ArrayList<Location> neighborsOf(Location ofLoc) -- Returns
        a list of all the neighbors of this location (either 4
        or 8, depending on how the grid was constructed)
    public void add(GridObject obj, Location loc) -- Adds the
        specified object to the grid at the specified location.
    public GridObject objectAt(Location loc) -- Returns the object at loc
```

Selected Location methods:

```
    public Location(int row, int col) -- Constructs a location object
        with the specified row and column.
    public int row() -- Returns the row associated with this location.
    public int col() -- Returns the column assoc. with this location.
```

Selected Direction constants and expressions:

```
    Direction.NORTH, Direction.SOUTH, Direction.EAST, Direction.WEST,
        ....NORTHEAST, ....NORTHWEST, ....SOUTHEAST, ....SOUTHWEST
    Direction.randomDirection() -- Returns a random direction
    Direction.randomDirection().roundedDir(4, Direction.NORTH) -- Returns
        a random choice from Direction.NORTH, ....SOUTH, ....EAST, ....WEST
```

Selected GridObject methods:

```
    public GridObject() -- Constructs an object that is not in a grid
    public GridObject(Grid grid, Location loc)
        -- Constructs an object at the specified location in the grid
    public void addToGrid(Grid grid, Location loc) -- Add this object to grid
    public void changeLocation(Location newLoc)
    -- Move object to new location in the grid
    public void removeFromGrid() -- Remove this object from grid
    public Grid grid() -- Returns this object's grid
    public Location location() -- Returns this object's location
```

Selected TextCell methods (note that TextCell extends GridObject):

```
    public TextCell(String text, Color textColor) -- constructor
    public TextCell(int number, Color textColor) -- alternative constructor
    public String text() -- Returns the text of this text cell
    public Color color() -- Returns the color of this text cell
  NOTE: TextCell cell = new TextCell(9, Color.RED) creates a new text
  cell containing the string "9" in red.
```