Check the class web page (and discussion board, linked from webpage) for news and info:

https://sites.google.com/a/eng.ucsd.edu/cse-8a-fall-2013/home

Lab starts this week. Discussion starts this week. Tutor hours started over the weekend.

Office hours: T 11-1pm and by appointment

Lab starts tomorrow. Check your email for seating assignment. BE ON TIME!

TODO:
– Reading for next class (on website – schedule and assignments page)
– PSA1 due tomorrow midnight!
– PSA1 interview due Friday by noon.
You MUST show up to YOUR lab (the one you’re enrolled in) on time (or early)

- It’s a 40 minute sprint… (then a 10 min quiz)
- If you show up more than 5 minutes late or to the wrong section you will lose all your participation points.
- Lab is in B230 (BASEMENT, elevator or outside entrance – no stairs from 1st floor)
Today in CSE 8A

Sequential execution, the Turtle, and calling methods

```java
public AgentNode getClosest(double distance, AgentNode

    // get the head of the deer linked list
    AgentNode head = list;
    AgentNode curr = head;
    AgentNode closest = null;
    Deer thisDeer;
    double closestDistance = 999;
    double currDistance = 0;

    // loop through the linked list looking for the closest deer
    while (curr != null)
        {
```

Welcome to DrJava. Working directory is

```
C:\Users\Beth\Desktop\MediaCompWorkshop-June2008\CS2-Java\intro-prog-java\Betths
classes
> double closestDistance = 33.3;
> System.out.println("closestDistance + \$1.1);`
38.4
Reading Quiz

CLICKERS OUT
1. What does the following code do?

```java
World myWorld = new World();
System.out.println(myWorld);
```

A. Create a new World with 1 turtle and print out the size of the world
B. Create an empty new World and print out the size of the world
C. Nothing, the code is incorrect
2. Complete the following line of code to create a new Turtle object in the middle of `myWorld`:

```java
Turtle myTurtle =
```

A. `new Turtle(myWorld);`
B. `new Turtle();`
C. `new World();`
D. `myWorld(myTurtle);`
3. What is the line of code that will cause myTurtle to move forward 100 units?

A. myTurtle(100);
B. myTurtle.100;
C. myTurtle.forward = 100;
D. myTurtle.forward(100);
4. In the context of calling a method, what is a parameter list (parameterList)?

A. A list of numbers telling a Turtle where to go
B. A list of addition information that describes what we want the object calling the method to do
C. A list of objects that have been created.
Reading Quiz

END

But Keep your clickers!
Review: Dr. Java IDE

- Which pane holds the permanent copy of a Java code (like an email) and which holds a temporary copy that can’t be saved (like an IM session)?
Review: Terminology

A. Type, Class, parameter list

B. Class, Object, method name

C. Object, method name, parameter list

Turtle turtle1 = new Turtle();
turtle1.turn(-45);

Does your team know what these terms mean/are?

1) SOLO VOTE (30 secs)
2) Discuss in team (1 min)
3) GROUP VOTE (20 sec)
What is wrong with the following code?

```java
World world1 = new World(200,100);
Turtle maria = new Turtle(100, 50, world1);
maria.forward(25);
maria.forward(50);
maria.turnLeft;
maria.turnRight;
maria.forward(25);
```

A. Nothing
B. It is missing a semi-colon
C. `turnLeft` and `turnRight` should be followed by `()`
D. `turnLeft` and `turnRight` are supposed to take parameters
What does this code draw?

```java
World world1 = new World(200, 100);
Turtle maria = new Turtle(100, 50, world1);
maria.forward(25);
maria.turnLeft();
maria.forward(50);
maria.turnRight();
maria.forward(25);

Hint: Turtles start facing “up”
```

1) SOLO VOTE (1 min)
2) Discuss in team (2 min)
3) GROUP VOTE (30 sec)
World world1 = new World(200, 100);
Turtle maria = new Turtle(100, 50, world1);
maria.forward(25);
maria.turnLeft();
maria.forward(50);
maria.turnRight();
maria.forward(25);

Vs.

World world1 = new World(200, 100);
Turtle maria = new Turtle(100, 50, world1);
maria.forward(25);
maria.forward(50);
maria.turnLeft();
maria.turnRight();
maria.forward(25);
What does this code output?

```java
World world1 = new World(200, 100);
Turtle maria = new Turtle(100, 50, world1);
maria.forward(25);
maria.forward(50);
maria.turnLeft();
maria.turnRight();
maria.forward(25);
```

Hint: Turtles start facing “up”

A

B

C

D
CS Concept: Sequential Execution

World world1 = new World(200,100);
Turtle maria = new Turtle(100, 50, world1);
maria.forward(25);
maria.turnLeft();
maria.forward(50);
maria.turnRight();
maria.forward(25);

Vs.

ORDER MATTERS!
How many objects are created in this code?

World world1 = new World(200, 100);
Turtle maria = new Turtle(25, 25, world1);
Turtle jose = new Turtle(100, 50, world1);
maria.forward(25);
jose.forward(10);
maria.turnLeft();
maria.forward(50);
jose.forward(5);

A. 1  
B. 2  
C. 3  
D. 4
What does this code output?

```java
World world1 = new World(200, 100);
Turtle maria = new Turtle(25, 25, world1);
Turtle jose = new Turtle(100, 50, world1);
maria.forward(25);
jose.forward(10);
maria.turnLeft();
maria.forward(50);
jose.forward(5);
```

Hint: Turtles start facing “up”
CS Concept: Objects

“Give me a new object, please”

Turtle maria = new Turtle(25, 25, world1);

What kind of object

The code that creates the object (constructor)

A variable that refers to the object

maria
CS Concept: Objects

Turtle maria = new Turtle(25, 25, world1);
Turtle jose = new Turtle(100, 50, world1);

Two different turtles objects (instances of class Turtle) with the same capabilities
Other important Turtle methods (know these)

- turn
- penUp
- penDown
- show
- hide
- moveTo
- setName
- getName

http://www.cs.duke.edu/courses/fall06/cps001/doc/mediaClasses/SimpleTurtle.html
TODO

- Finish PSA1, submit, plan interview.
- Check the class web page and discussion board
  
  https://sites.google.com/a/eng.ucsd.edu/cse-8a-fall-2013/home
  https://piazza.com/class#fall2012/cse8a

- For next class: read textbook 2.4, 3.5 and watch the video! prepare for reading quiz