CSE143X Lecture Questions for Wednesday, 10/7/20

Time (e.g., 12:45)	Question	Answer
30:00	In this case, is the int passed by value to the function, so we need to assign n=update(n)?	Yes, Java uses a pass-by-value parameter mechanism.
5:27	Why is velocity updated by /10?	Look in the for loop and you'll see that we sleep for 100 milliseconds. That's one tenth of a second. So we have to divide the velocities by 10 to match.
7:29	Is it ok to directly use radians instead of converting to them?	Yes, we could have prompted the user for radians, but people aren't used to giving values in radians.
	How do you get the formula for velocity as v= v * cos(angle) OHH right sorry my bad thanks	It's basic Physics. We use sin/cos to get the horizontal and vertical components of the velocity.
29:50	Pizza analogy really speaks to me. Very good way to describe information flow haha.	Glad you liked it.
	^ petition to conduct all future classes in terms of food.	Will take under advisement. :-)
	What does the initial seconds represent? Is it the total time the ball moves?	The value of "seconds" that we prompt for is how many seconds to run the simulation (like what you said...the total time the ball moves).
	The time specified is 30 seconds but the ball only takes a few seconds to go outside the panel. What happens in the remaining time that the program is running? Edit: So the program is still drawing the ball off screen (in the initial version)?	In the initial version the program draws the ball at locations that aren't part of the DrawingPanel (drawing off screen). Eventually we make it "bounce" to stay in bounds. Yes, the initial program continues to draw off screen until the appropriate time has elapsed.
	^would the program still be drawing the ball if it goes beyond the computer window/is there a boundary? Would the program crash?	Java in general doesn't care if you give drawing commands that go off the screen. It just ignores them.

38:00	Even though you used if + else if instead of if + else, why did you get the error of "variable change might not have been initiated"? Logically, wouldn't it have worked, even if you did lose a style point? Thank you!	There is a section of chapter 4 called "reasoning about paths" that explains this in detail. Here's the short version. When Java sees an if/else structure ending with an if, it thinks that it's possible that no branch is executed. If so, then the variable wouldn't be initialized.
42:40	If we are using an "if"statement to exactly take one path, can we use the logical and "&&" instead of using "if else" as in the BMI example?. Would that choice be a personal preference or style problem?	The logical and (&&) wouldn't help because these are different cases. You either want to say "underweight" or you want to say "normal" or you want to say...
11:50	Do we have to know how the Scanner class is constructed or will we cover it later?	No, we don't need to know how it works and we won't be talking about it. You have to get used to using off-the-shelf software where you don't know how the code is implemented.