CS1 Programming Assignment 3 Algorithm- Seth Miller

1. Import Scanner, File, & IOException and java.text classes
2. Initialize all variables:

* Drop height
* Bounce height
* Bounces
* Initial bouncer
* Bounce counter
* Distance
* Total distance
* Bounce index
* Negligible bounce height

1. Set Decimal format to two decimal places
2. Set new input file and file scanner
3. Test if there are integers left with while loop
4. In “integers left” loop, set drop height, bounce height, and bounces variables to next three integers (respectively) in file
5. Set initial bounces to current value of bounces variable
6. Calculate bounce index
7. Set distance and total distance to 0
8. While bounce height is larger than negligible distance, and value of bounces variable is not zero, run next steps
9. Set distance to drop height + bounce height
10. Set drop height to new bounce height
11. Set bounce height to drop height \* bounce index
12. Set total distance to current total distance + distance
13. Increment the bounces and bounce counter variables
14. Print the bounce counter, drop height, bounce height, distance, and total distance for that bounce
15. Repeat steps 10-16 while condition of step 9 is met
16. Once while loop on step 9 is done (when bounces = 0 or bounce height is equal to or less than negligible distance), print the bounce index, initial bounces, bounce counter, and total distance amounts in decimal format.
17. Repeat steps 6-18 while there are integers left on file