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Week 8 exercise

Cs1122

1)

a.n^2   b.n^10   c.n^4   d.n^4   e. .001n^3

f.n^3   g.log(n)   h.n^2   i.2^n   j.n^3/n^2

2)

O(n ^n) -c,   O(2n) -g,   O(n 3)-b,   O(n) -a,   O(n ^log n) - j ,   O(n 2 log n) -e,

O(n log n) - f,   O(n log n) - d ,   O(n √ n)-i,   O(√ n)-h,

3)
N = a^a-1

4)
Int timeOfRun = 0;
For (int i =0; i < ArrayOfRuns.length -1;i++){
Int StartTimer = get time;
ArrayOfRuns.get(i).run;//start the run
StopTimer = get time;
Int tempTime = StopTimer - StartTimer ;
if(tempTime > timeOfRun){
timeOfRun =tempTime ;
}
Return timeOfRun;

5)
N will have a O(n) type of relationship, the only factor for the run time of the method would be the size of the array you pass in. The time of the program is proportional the number of elements of the array.