

CISC 3130 Section MY9 --- Practice Problem 1
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Workbook: Chapter 1 ----- Problem 8:

For the following formula $f(n) = 3n+1$, as n increases from 1 to 10, what is the resulting output?
Write the number as a series.

Process: WorkbookChapter1Problem8.java

Answer:

When n goes from 1 to 10, $f(n) = 3n+1$ should have the result on this:
[4, 7, 10, 13, 16, 19, 22, 25, 28, 31]

Workbook: Chapter 1 ---- Problem 15:

Rank these functions according to their growth, from the most expensive to the least expensive.

n^3 1 $(3/2)n$ n^2 $2n$ $\log_2(n)$

Process: WorkbookChapter1Problem15.java

Answer:

If n is a positive number:

[n^3 , n^2 , $2n$, $(3/2) * n$, n , $\log_2(n)$, 1]

If n is a 0:

[1, n , $(3/2)n$, $2n$, n^2 , n^3 , $\log_2(n)$]

If n is a negative number:

[n^2 , 1, n , $(3/2) * n$, $2n$, n^3 , $\log_2(n)$]