Assignment 4

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CS 111 ASSIGNMENT 4
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Problem 1:

Give the asymptotic value (using the θ-notation) for the number of letters that will be printed by the algorithms below. In each algorithm the argument n is a positive integer. Your solution needs to consist of an appropriate recurrence equation and its solution, including a justification for both.

(a)

Algorithm PRINTAS (n : **integer**)
if $n < 3$
print("A")
else
PRINTAS($\lceil n/3 \rceil$)
for $i \leftarrow 1$ **to** 9 **do** print("A")

print("A") else PrintAs(dn/3e) for i 1 to 9 do print("A")

Solution 1:

Problem 2:

Solution 2: