

CS 21 Introduction to Java Programming:

Project 8:

1. Write a recursive function to calculate

$$A_n = (((((1*2+1)*2+1)*2+1)*2+1) \dots\dots\dots)*2+1$$

for,

$$A_0 = 1,$$

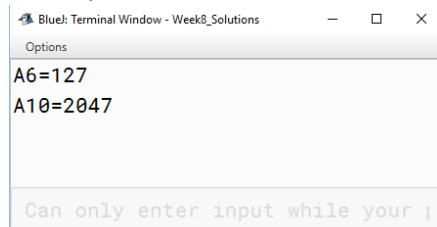
$$A_1 = 1*2+1,$$

$$A_2 = (1*2+1)*2+1,$$

....

$A_n = (((((1*2+1)*2+1)*2+1)*2+1) \dots\dots\dots)*2+1$, where n is the number of times for multiplication by 2.

2. Please print out the value of A_6 and A_{10}
3. The expected result is:



```
BlueJ: Terminal Window - Week8_Solutions
Options
A6=127
A10=2047
Can only enter input while your {
```

4. Explain what are these numbers.