FST Name:

PS 4.3 Date: Block:

***Problem Set 4.3***

1. This summer, Alexa has exactly 6 weeks free to work. Both of Alexa’s parents have offered her a job. Parent 1 offers her 1 penny today, 2 pennies tomorrow, 4 pennies the next day, growing **geometrically** for 6 weeks. Parent 2 offers her $1,000 the first day, $1,100 the second day, $1,200, growing **arithmetically** for 6 weeks. Assume she work 6 weeks (5 days per week) for a total of 30 days. Calculate the total amount she would earn from Parent 2.



2) If an = 2 + 3(n – 1), find 3) If $\left\{\begin{array}{c}p\_{1}=-17\\p\_{n}=p\_{n-1}+9\end{array}\right.$ Find



4) If cn is an arithmetic sequence and c2 = 106, c3 = 89, c4 = 72, find

5) Ms. Kuchler wants you to help her build a shed at Porter Gaud. She will pay you $10 for the first week and add an additional $10.50 each week thereafter. The project will take 5 weeks. How much money will you earn, in total, if you work for the 5 weeks?

6) You have 55 blocks. You want to stack up all the blocks so that each row has one less block than the row below. You want to end up with just 1 block on the top. How many blocks should you put in the bottom row?

7) In an arithmetic sequence r3 = 207 and r8 = 192.

a) Find the explicit formula for the arithmetic sequence.

b) Evaluate r73. c) Evaluate S85 for the arithmetic series.

8) Evaluate the series.

a)  b) 

c)  d) 

e)  f) 