4.5: Using Excel to Analyze Sequences and Series

Recall Problem 1 from PS 4.3

This summer you have exactly 6 weeks free to work and both your Mom and Dad have offered you a job. Assume you work 6 weeks (5 days a week) for a total of 30 days. Who should you work for?

Mom's Offer:

Your mom offers you 1 penny day 1, 2 pennies on day 2, 4 pennies on day 3, growing **geometrically** for 6 weeks.

Dad's Offer:

Your dad offers you $1000 day 1, $1100 day 2, $1200 day 3, growing **arithmetically** for 6 weeks.

1. Open a Microsoft Excel Document

2. Save As: **Lesson 4.5**

3. Excel Tutorial (Take notes in the space below.)

4. Set up column Titles in columns A - E.

A1 = Day Number

B1 = Mom Payment

C1 = Mom Total

D1 = Dad Payment

E1 = Dad Total

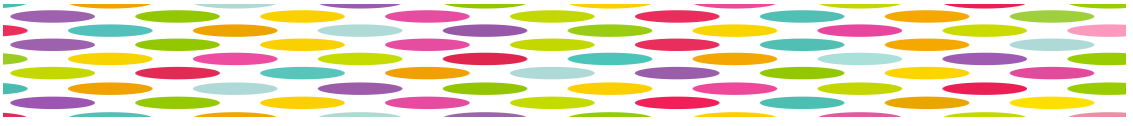
5. Use a formula to generate day numbers in column A.

6. Write a recursive and explicit formula that describes mom and dad's payment method where ***n = the day number*** and ***a_n = the amount you get paid on day n***.

Mom: **Dad:**

7. Set up how much money **MOM** pays you each day in column B.

8. Set up how much total money you've earned from **DAD** at the end of each day in column D.



9. Use a formula to show how much total money you've earned from MOM at the end of the nth day in column C.

10. Use a formula to show how much total money you've earned from DAD at the end of the nth day in column E.

11. Who are you going to work for?