Algebra 2 Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Arithmetic and Geometric Series Application Problems Per. \_\_\_\_\_\_\_\_\_\_

1. During their routine, a high school marching band marches in rows. There is one performer in the first row, three performers in the next row, and five in the third row. This pattern continues for the rest of the rows.
2. How many performers would be in the 5th row?
3. How many performers would be in the 14th row?
4. How many performers would be in the 50th row?
5. Geraldo’s employer offers him a pay rate of $9 per hour with a $0.15 raise every three months.
   1. How much will Geraldo earn per hour after 6 months?
   2. How much will Geraldo earn per hour after his first year?
   3. How much will Geraldo earn per hour after 3 years?
6. When a piece of paper is folded onto itself, it doubles in thickness. You are given a piece of paper that is 0.1 mm thick.
   1. If you folded the paper twice, how thick would it be?
   2. If you folded the paper 5 times, how thick would it be?
   3. If you folded the paper 10 times, how thick would it be?
   4. If you folded the paper 37 times, how thick would it be?
7. Tammy’s car is expected to depreciate at a rate of 15% per year. Her car is currently valued at $24,000.
   1. After one year, how much is Tammy’s car worth?
   2. After 5 years, how much is Tammy’s car worth?
   3. After 18 years, how much is Tammy’s car worth?