Chapter 12 –Sequences: Formulas

Arithmetic

- Sequence/Explicit: $a_n=a_1+d\ (n - 1)$
- Sum of Series: $S_n = n(\frac{a_1 + a_n}{2})$
- Recursive – a_1 = _____ and $a_n=a_{n-1}+d$, need a_1 and d

Geometric

- Sequence/Explicit: $g_n=g_1\ r^{n - 1}$
- Sum of Series: $S_n = a_1(\frac{1 - r^n}{1 - r}), r \neq 1$
- Sum of Infinite Series: $S = \frac{a_1}{1 - r}, |r| < 1$
- Recursive – g_1 = _____ and $g_n=rg_{n-1}$, need g_1 and r