163 Quiz 8 Name: _____

1. Find the first 5 terms of the sequence defined by the recurrence relation

$$a_n = -a_{n-1}\left(\tfrac{n+1}{n}\right), a_1 = 2$$

2. Show that $a_n = 2^n$ is a solution to the recurrence relation

$$a_n = a_{n-1} + 2a_{n-2}$$

3. Find $\sum_{k=1}^{5} 3k - 2$

4. Find $\sum_{k=0}^{\infty} \left(\frac{3}{4}\right)^k$