

Quiz 7 MATH 2502 Spring 2019

$$\sum_{n=0}^{\infty} \left(-\frac{1}{7}\right)^n = \frac{1}{1 - \left(-\frac{1}{7}\right)} = \frac{1}{1 + \frac{1}{7}} = \frac{1}{\frac{8}{7}} = \frac{7}{8}$$

↑
geometric,
 $r = -\frac{1}{7} \Rightarrow$ converges

$$a_n = -3 - 4(n-1)$$

Quiz 7
 $a_1 = 1$

Solve: Recursive relation says $a_{n+1} = 10a_n$

- $n=1 \rightarrow a_1 = 10a_0 = 10(1)$
- $n=2 \rightarrow a_2 = 10a_1 = 10^2$
- $n=3 \rightarrow a_3 = 10a_2 = 10^3$

$$a_n = 10^{n-1}$$