**Quiz 22 Math 372 LAST ONE!**

**12/2/25**

Consider the geometric series that begins:

$$6 + 2 + \frac{2}{3} + \ldots$$

a) Write the first six terms on your paper. Then add them on your calculator. Just add them! Don't use any fancy formulas. Write the answer.

b) Find the infinite sum. Show work.

c) Are your answers to (a) and (b) kind of close to each other?

d) What is the 11th term of the series? Write as a fraction or a decimal or scientific notation.

Ans:

a) $6 + 2 + \frac{2}{3} + \frac{2}{9} + \frac{2}{27} + \frac{2}{81}$, and the sum is 8.9877 ish.

b) a1 = 6, r = 1/3, S = 6/(1 – 1/3) = 6/(2/3) = 9

c) yes

d) 2/19683 = 0.0001016 = $1.1016 \times 10^{-4}$