

## Summing Geometric and Arithmetic Series

In class we presented formulae for summing geometric and arithmetic series, and wrote a program to have the computer do the sums without using the formulae (as practice writing loops.) Use the formulae to do these problems.

[1] Compute

$$S = 9/10 + 9/100 + 9/1000 + \dots$$

$$T = 1/3 + 1/9 + 1/27 + 1/81 + \dots$$

(The sums go on forever.)

[2] Compute

$$S = 3 + 10 + 17 + 24 + \dots + 703.$$

(The sum ends at 703.)