

Mathematics 300

Quiz 12

Name: _____

You must show your work to get full credit.

1. What is the sum of the geometric series

$$S = 1 + \frac{1}{3} + \frac{1}{3^2} + \frac{1}{3^3} + \cdots + \frac{1}{3^n}.$$

$S =$ _____

2. What is the remainder when 52,483 is divided by 9?

The remainder is _____