## QUIZ 7 - MATH 152 YOUR NAME:\_\_\_\_

Read each problem **very carefully** before starting to solve it. Each problem is worth 5 points. It is necessary to show **all** your work. Correct answers without explanations are worth 0 points. GOOD LUCK!!

- 1. (a) Write the general formula of a geometric series with first term a and ratio r.
  - (b) Under which condition does the geometric series of Part (a) converge? Under this condition, what is its sum?
  - (c) Find the sum  $\sum_{n=1}^{\infty} 5 \cdot 2^{n-1} 3^{1-2n}$ .

2. Is the series  $\sum_{n=1}^{\infty} \frac{n+1}{100n}$  convergent or divergent? If it is convergent, find its limit.