

Mathematic 300, Spring 2003

In Class Writing
Connecting two phrases

In each of the following examples fill in the blank with a connecting word such as and, but, therefore, so, although, however, despite this, because. You do NOT have to use one of the words on this list. Add commas as necessary.

1. It was raining _____ I didn't go to the baseball game.
2. I went to the baseball game _____ I ate a steak sandwich.
3. _____ the sum of the interior angles of a convex pentagon is 540 degrees, each angle of regular pentagon measures 108 degrees.
4. The volume of the fishing pole is much less than one cubic foot _____ it won't fit in the suitcase.
5. He took the food. He, _____ could not eat it.
6. The terms of the harmonic series tend to 0 _____ the harmonic series diverges.
7. _____ the terms of the harmonic series tend to 0, the harmonic series diverges.
8. Euler proved $\sum_1^\infty \frac{1}{n^2} = \frac{\pi^2}{6}$ _____ $\sum_1^{313} \frac{1}{n^2} < \frac{\pi^2}{6}$.
9. $\sum_1^\infty \frac{1}{n^2} < 1.7$ _____ $\sum_1^\infty \frac{1}{n^3}$ is between 1.202 and 1.203.
10. There are disjoint rectangles of area $\frac{1}{n^2}$ for every integer $n \geq 2$ contained in the region bounded by the x -axis, the line $x = 1$ and the graph of $f(x) = \frac{1}{x^2}$ _____

$$\int_1^\infty \frac{1}{x^2} dx > \frac{1}{4} + \frac{1}{9} + \frac{1}{16} + \frac{1}{25} + \dots$$