

Quiz 4

Math 1572H, 23 February 2006

1. [5 points] Use the comparison test to show the integral

$$\int_3^{\infty} \frac{\ln x + 5x^{4/11}}{\sqrt{x^2 - \sqrt{x}}} dx$$

diverges.

2. [5 points] The Navigation Satellite for Time and Ranging/Global Positioning Satellite System (Navstar/GPS) consists of 24 satellites approximately 17700 kilometers above the surface of the earth in circular orbits. How fast are the satellites traveling?