

ESP Quiz 8 (Kouba)

Please PRINT your name here : _____

This quiz is OPTIONAL. A passing score of 75% can be used to replace one absence or a deficient quiz. It is due next Tuesday at the beginning of ESP class.

1.) (10 pts. each) Do the following series converge or diverge ? Show steps and name the test you use.

a.)
$$\sum_{n=0}^{\infty} (-1)^n \frac{n^3}{n^4 + 27}$$

b.)
$$\sum_{n=2}^{\infty} 3^{-n} \cdot \sqrt{\frac{n^2 + 3n - 2}{n^4 + n^2 + 1}}$$

c.)
$$\sum_{n=1}^{\infty} \frac{3n + (-1)^n}{n^3 + 5}$$

d.)
$$\sum_{n=1}^{\infty} \frac{3^n n^n}{(n+3)!}$$