Math 142 – Calculus 2 Name_____
Section 10.3 Video Worksheet

The Integral Test

A series $\sum_{n=1}^{\infty} a_n$ of nonnegative terms converges if and only if

Harmonic Series $\sum_{n=1}^{\infty} \frac{1}{n}$

Integral Test –

$\sum_{n=1}^{\infty} \frac{5}{n+1}$

$$\sum_{n=1}^{\infty} \frac{1}{n\left(1+\ln^2 n\right)}$$

$$\sum_{n=1}^{\infty} \frac{2}{1+e^n}$$

P-series

$$\sum_{n=1}^{\infty} \frac{1}{n^2}$$

$$\sum_{n=1}^{\infty} \frac{-2}{n\sqrt{n}} =$$

$$\sum_{n=1}^{\infty} \frac{3}{\sqrt[3]{n}} =$$

Summary:

p-series

Integral test

Geometric Series

N^{th} term test

Telescoping Series