9.6 The Ratio and Root Test

Name: Date: July 28, 2015

P 14. Determine the convergence or divergence of

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

P 16. Determine the convergence or divergence of

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

P 18. Determine the convergence or divergence of

$$\sum_{n=1}^{\infty} n \left(\frac{7}{8}\right)^n$$

P 20. Determine the convergence or divergence of

$$\sum_{n=1}^{\infty} \frac{5^n}{n^4}$$

P 42. Determine the convergence or divergence of

$$\sum_{n=1}^{\infty} \left(\frac{-3n}{2n+1} \right)^{3n}$$

P 63. Determine the convergence or divergence of

$$\sum_{n=1}^{\infty} \left(\frac{2\pi}{3} \right)^{n}$$

Identify the test used.

P 60. Determine the convergence or divergence of

$$\sum_{n=1}^{\infty} \frac{2^n}{4n^2 - 1}$$

P 62. Determine the convergence or divergence of

$$\sum_{n=1}^{\infty} \frac{(-1)^n}{n \ln n}$$