1. The Integral Test:

2. All questions below refer to the series $\displaystyle\sum_{n=1}^{\infty} \frac{3n}{10 + n^2}$

   (a) What does the Divergence Test tell us about this series?

   (b) Show that we can apply the Integral Test to the series.

   (c) Use the Integral Test to determine whether or not the series converges.

3. A **p-series** as the form:

4. p-series and convergence

5. Use what we know about p-series and convergence to determine whether the series below converge or diverge.

   (a) $\displaystyle\sum_{n=1}^{\infty} \frac{1}{n^{1.56}}$

   (b) $\displaystyle\sum_{n=1}^{\infty} \frac{1}{n^{99/100}}$