Does $\displaystyle\sum_{n=1}^{\infty} \frac{1}{n^{0.9}}$ diverge, converge absolutely, or converge conditionally?

- **Solution.** The series $\displaystyle\sum_{n=1}^{\infty} \frac{1}{n^{0.9}}$ diverges by the p-test since $p = 0.9$.