

Section 11.6 Worksheet: Power Series

1. How might you describe a power series in words?
2. What are the three possibilities for convergence of a power series?
3. Can you give an intuitive reason for why there a radius of convergence of $r = 1$ for the function $\frac{1}{1-x}$ (see p. 579)? Does your reason work for the function $\frac{1}{2+x^2}$ on the same page?
4. In what sense do integration and differentiation of power series work “just the way we’d like them to”?