

Expansions - Check your understanding

- In what sense is a power series an expansion of a function in terms of other functions?
- Is a power series an orthogonal expansion? Why or why not?
- What does it mean for a set of functions to form a complete basis of a space of functions?
- Why is it easier to expand a function on a basis of functions if the basis is orthogonal?
- Why do we study Sturm-Liouville problems? Why is this useful?