

9. Electricity on a spacecraft can be produced by a type of nuclear generator.
The electrical power produced by this generator can be modelled by

$$P_t = 120e^{-0.0079t}$$

where P_t is the electrical power produced, in watts, after t years.

- (a) Determine the electrical power initially produced by the generator. 1
- (b) Calculate how long it takes for the electrical power produced by the generator to reduce by 15%. 4