Problem 1.

Use the product differentiation rule to show that the conservative and non-conservative forms of the 1D spherical equation are identical.

Solution

Problem 2.

Use the product differentiation rule to show that the conservative and non-conservative forms of the 1D cylindrical equation are identical.

Solution

Problem 3.

Show that the white boundary condition is given by:

$$\Psi(\vec{r}_s, \hat{\Omega}, E, t) = 4J_n^+(\vec{r}_s, E, t)$$

Solution