

PH423 Assignment 1

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Question 1.

We consider the action of $\hat{\mathbf{P}}$ on an arbitrary state ϕ ,

$$\hat{\mathbf{P}}\phi(x) \tag{1}$$

to derive a weak equivalence with the desired result.

Starting with eq. (1), we first write it in bra-ket notation as

$$\langle x | \hat{\mathbf{P}} | \phi \rangle . \tag{2}$$

Question 2.

Sad World

Question 3.

Goodbye World