PHYS 451 Quantum Mechanics I (Spring 2018)
Quiz #6

Suppose you have three particles, one in state $\psi_a(x)$, one in state $\psi_b(x)$, and one in state $\psi_c(x)$. Assuming $\psi_a(x)$, $\psi_b(x)$, and $\psi_c(x)$ are orthonormal, construct the three-particle wave functions corresponding to:

(i) Distinguishable particles

(ii) Identical bosons

(iii) Identical fermions