PHYS 451 Quantum Mechanics I (Spring 2018)
Quiz #5

Consider a system of two particles: the first one has spin 2 while the second one has spin 1/2. The particles are in a state with the total spin equal to 3/2 and its projection on the z-axis is minimal. If the z-component of the first particle's spin is measured, what values may occur and with what probability?

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Note: A square-root sign is to be understood over *every* coefficient, *e.g.*, for $-8/15$ read $-\sqrt{8/15}$.