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One of main conjectures in commutative algebra in the last 20 years are the Multiplicity Conjectures by Herzog, Huneke and Srinivasan. We investigate the almost complete intersections in codimension three and construct general results about the structures of the graded resolutions of almost complete intersections. We use these structure theorems to compute the multiplicity and establish the conjectured bounds on the multiplicity of almost complete intersections in codimension three. These conjectures were proved recently by Eisenbud, Schreyer, Weyman, Boij and Söderberg. (Received September 03, 2009)