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# General theorems of dynamics and general equation of mechanics

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*General theorems of dynamics constitute one of the main parts in theoretical mechanics. Traditionally, these theorems are being derived from motion equations of a mechanical system. The main students' difficulties are associated with the question which theorem (or theorems) should be used to obtain the solution. The paper shows these theorems' derivation from the general equation of mechanics. This leads to changes in the theorems' formulation: reaction force of ideal constraints (internal and external) is out of the consideration. This approach compared with the traditional one gives a hint about the theorems to be used in the solution.*

**Keywords:** *general theorems of dynamics, general equation of mechanics.*

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