

2.1) Suppose that the force acting on a particle is favorable into one of the following forms:

$$[A] F(x_i, t) = f(x_i) g(t)$$

$$[B] F(\dot{x}_i, t) = f(\dot{x}_i) g(t)$$

$$[C] F(x_i, \dot{x}_i) = f(x_i) g(\dot{x}_i)$$

For which cases ~~are~~ are the equations of motion integrable?

