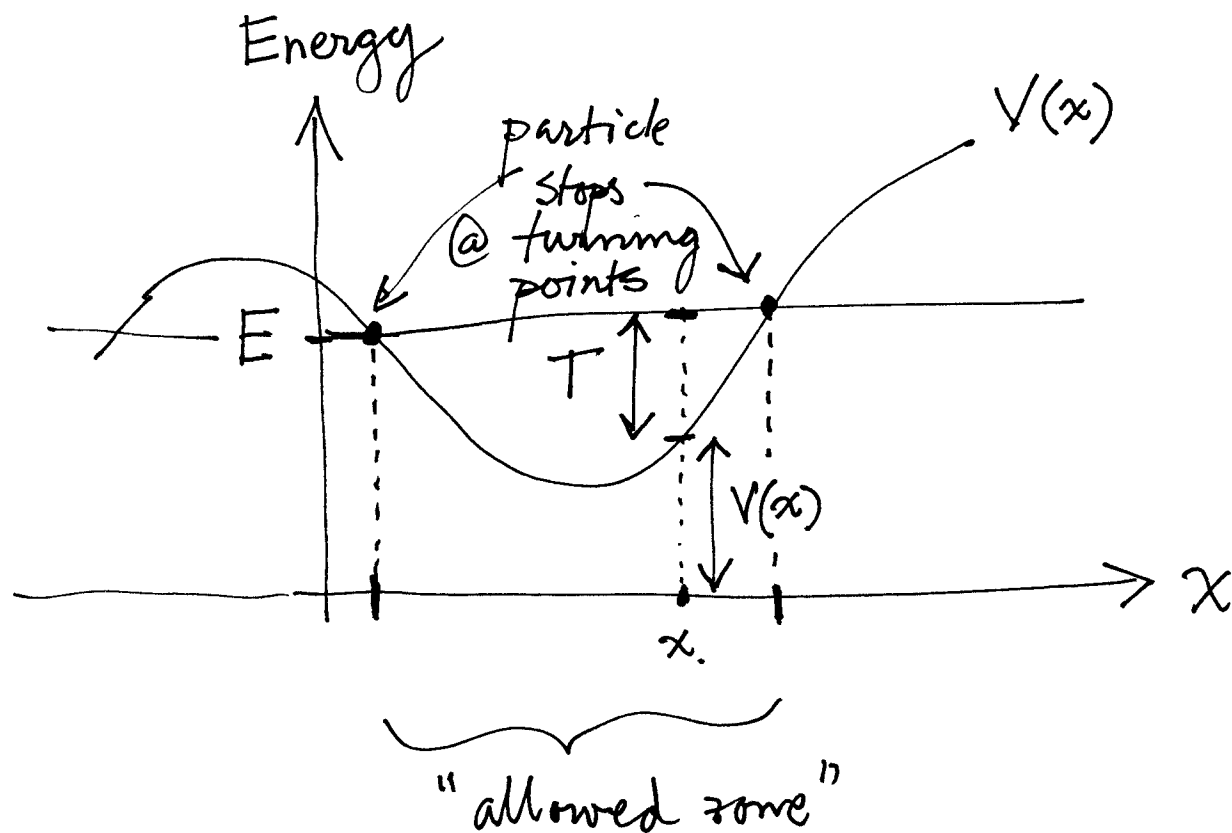
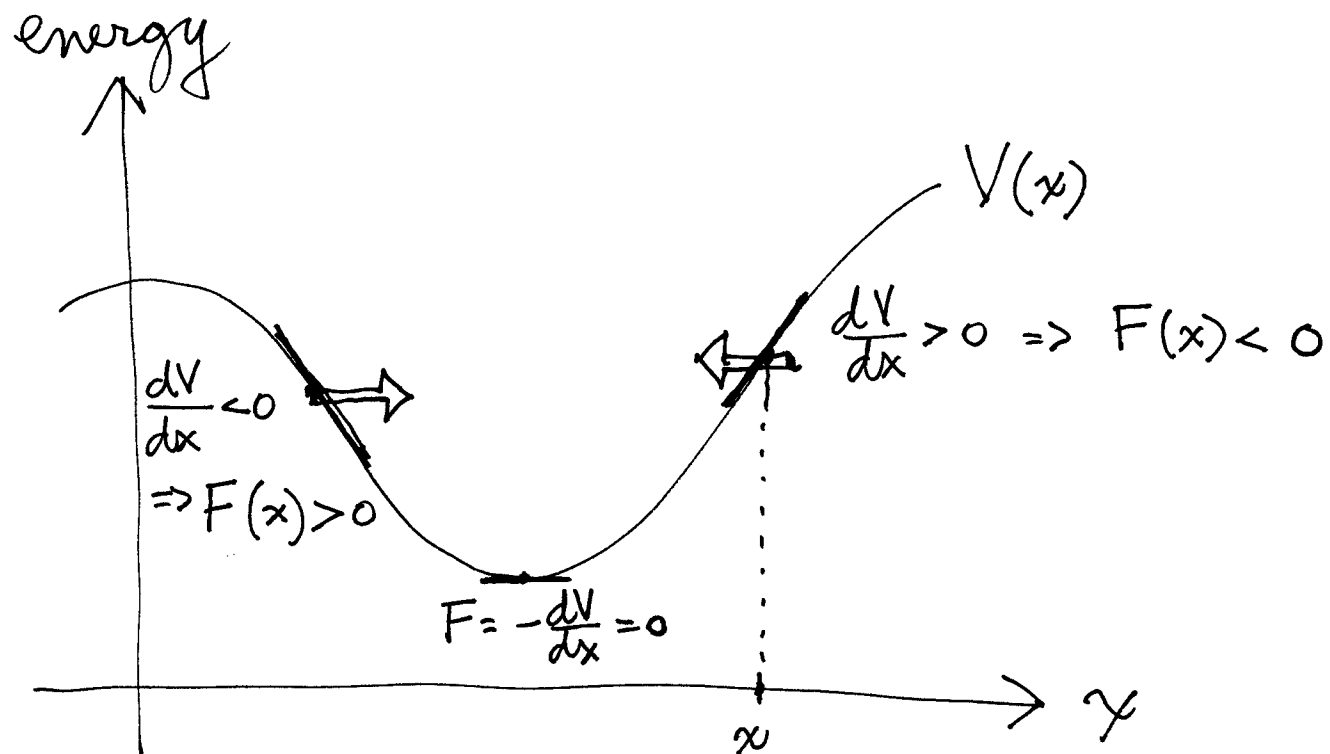


①

If $F(x)$ can be written as $-\frac{dV}{dx}$ $\leftarrow V(x)$
then $T + V = \text{constant}$.



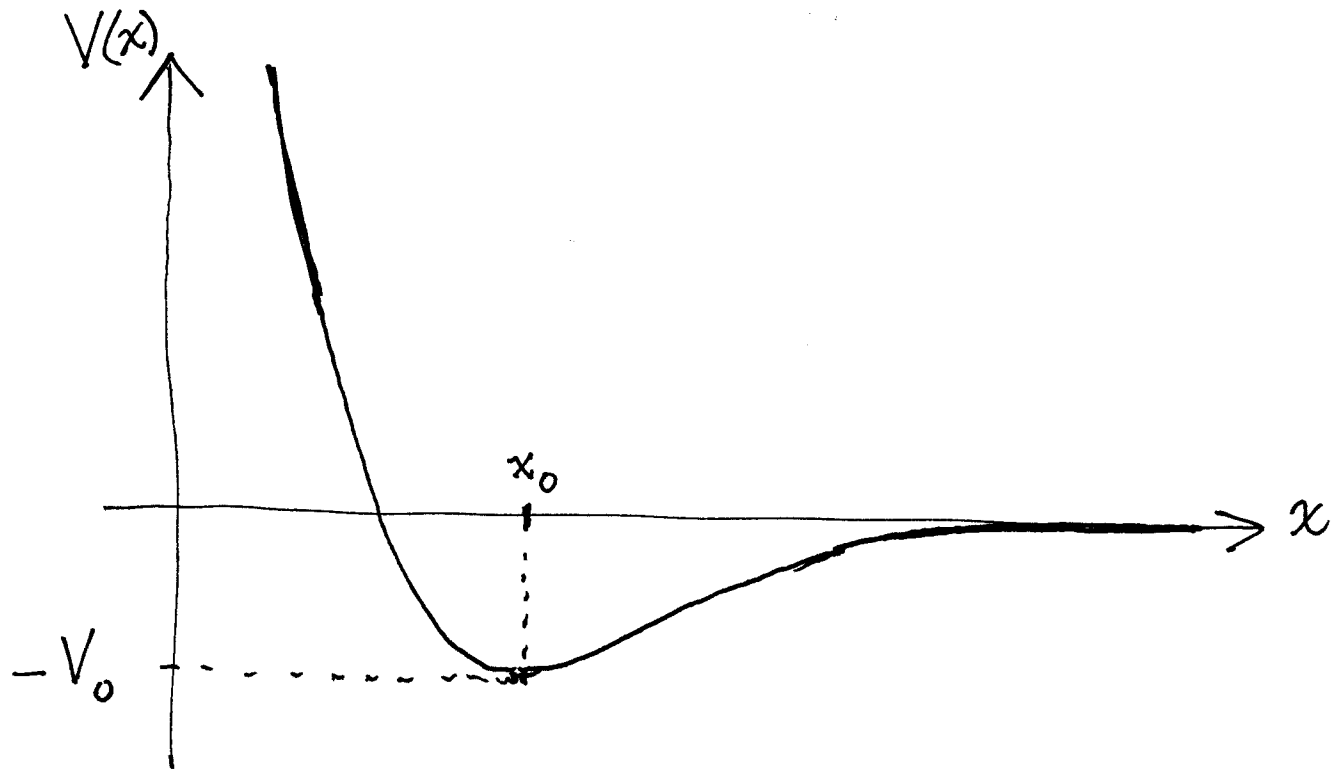
$$F(x) = - \frac{dV}{dx}$$



Example: Morse PE function

$$V(x) = V_0 \left[1 - e^{-(x-x_0)/\delta} \right]^2 - V_0$$

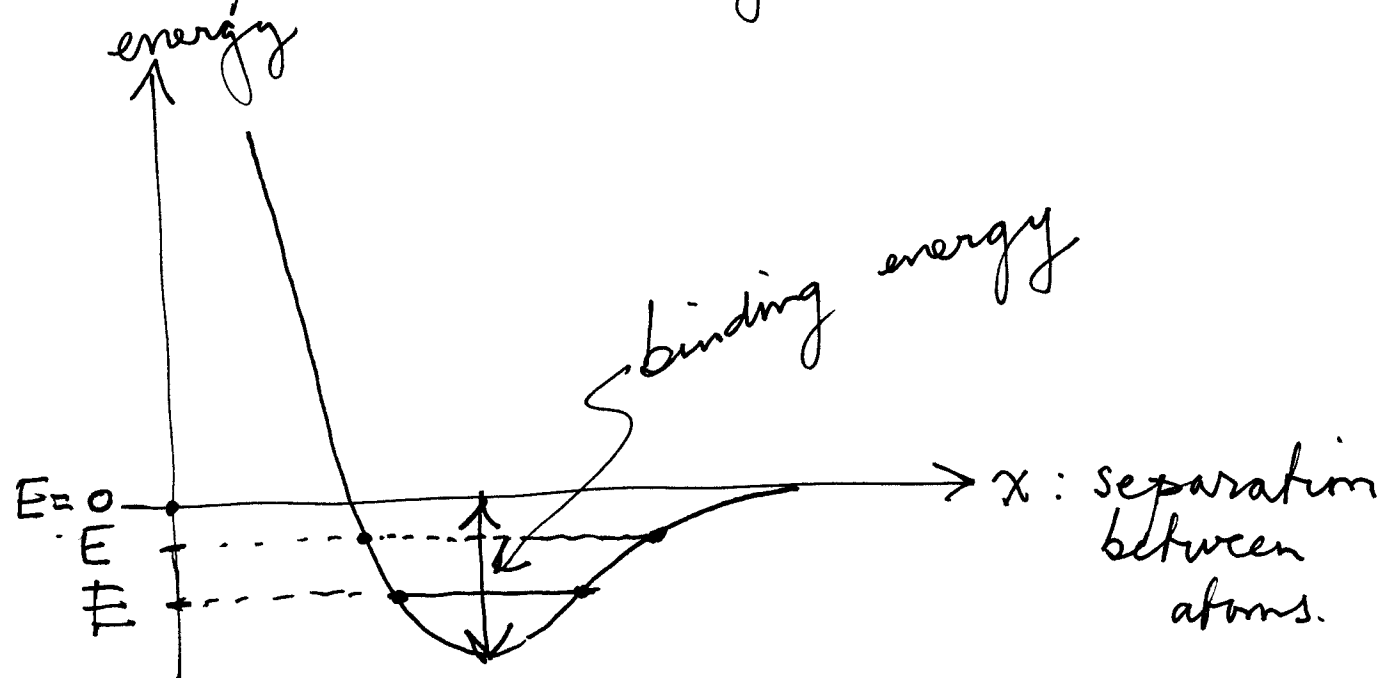
V_0 , x_0 , δ constants.



To simulate interactions between neutral atoms,
people use a Lennard-Jones

$$V(x) = V_0 \left[\left(\frac{x_m}{x} \right)^{12} - 2 \left(\frac{x_m}{x} \right)^6 \right]$$

Back to Morse pot., simulating a diatomic molecule:



Example :

{ photon
from Sun
↓
• O_2

can be dissociated
by a UV photon.

E a r t h