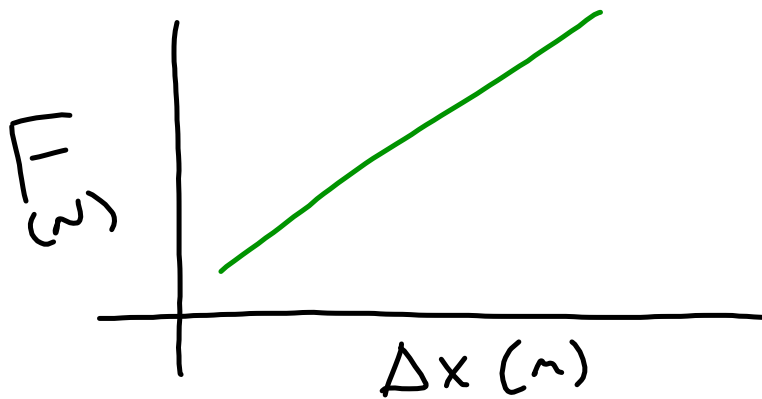


## Springs

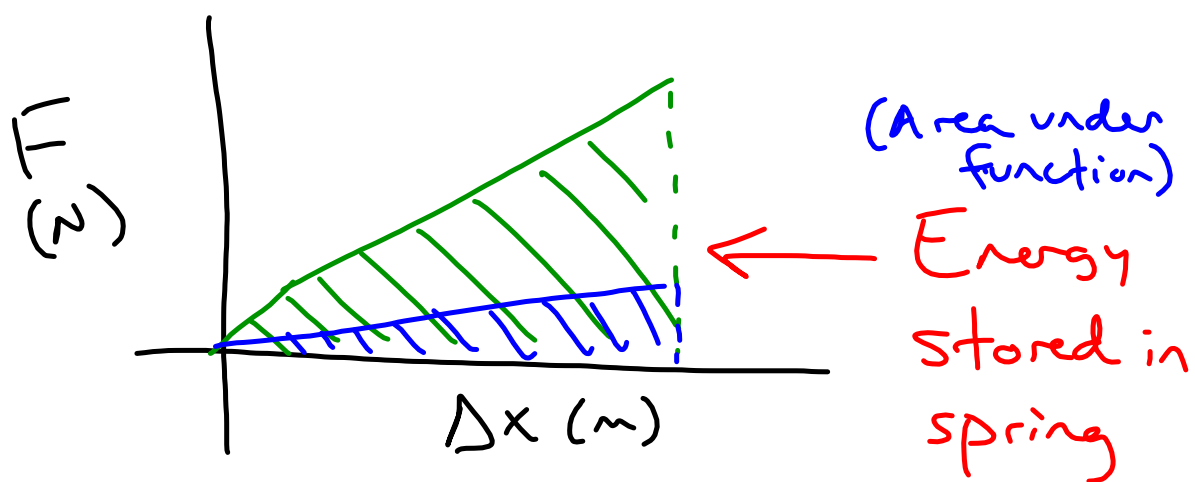


$$\text{slope} = \frac{\text{Force}}{\text{displacement}} = \frac{F}{\Delta x} = k$$

spring  
constant

$$F = -k(\Delta x)$$

↑  
Restoring force



$$E_{EI} = \frac{1}{2} k (\Delta x)^2$$