

$$t=0 \quad x=0 \quad v=0$$

for $i-1 < t \leq i$, where $i=1, 2, \dots, 10$

$$a = (x(t=10), v(t=10)) - \text{beurteilt}$$

$$A = ? \quad a = A \quad f \quad f_{\text{min}} = ? \quad a = (1, 0)$$

Periode:

$$\frac{dv}{dt} = F_1 \quad (1)$$

$$dv = F_1 dt \quad F_1 t|_0^{t_1}$$

$$v_1 = \int_0^{v_1} dv = \int_0^{t_1} F_1 dt = F_1$$

$$v_2 - v_1 = \int_{v_1}^{v_2} dv = \int_1^2 F_2 dt = F_2$$

$$v = v_1 + \dots + v_{10}$$

$$v_2 = F_2 + v_1 = F_1 + F_2$$

2. Schritt $\hat{A}: 10, 9, 8, \dots, 1$

Koordinaten:

$$\frac{dx}{dt} = F_1 t$$

$$x_1 = \int_0^{x_1} dx = \int_0^{t_1} F_1 t dt = F_1 \frac{t^2}{2} \Big|_0^{t_1} = \frac{F_1 t_1^2}{2} = \frac{F_1}{2}$$

$$x_2 - x_1 = \int_{x_1}^{x_2} dx = \int_{t_1}^{t_2} F_2 t dt = F_2 \left(\frac{t_2^2}{2} - \frac{t_1^2}{2} \right) = \frac{3}{2} F_2$$

u. n. g.

7. $\hat{A} : \frac{10}{2} ; \frac{3}{2} \cdot 9 ; \frac{5}{2} \cdot 8 ; \dots ; \frac{19}{2}$