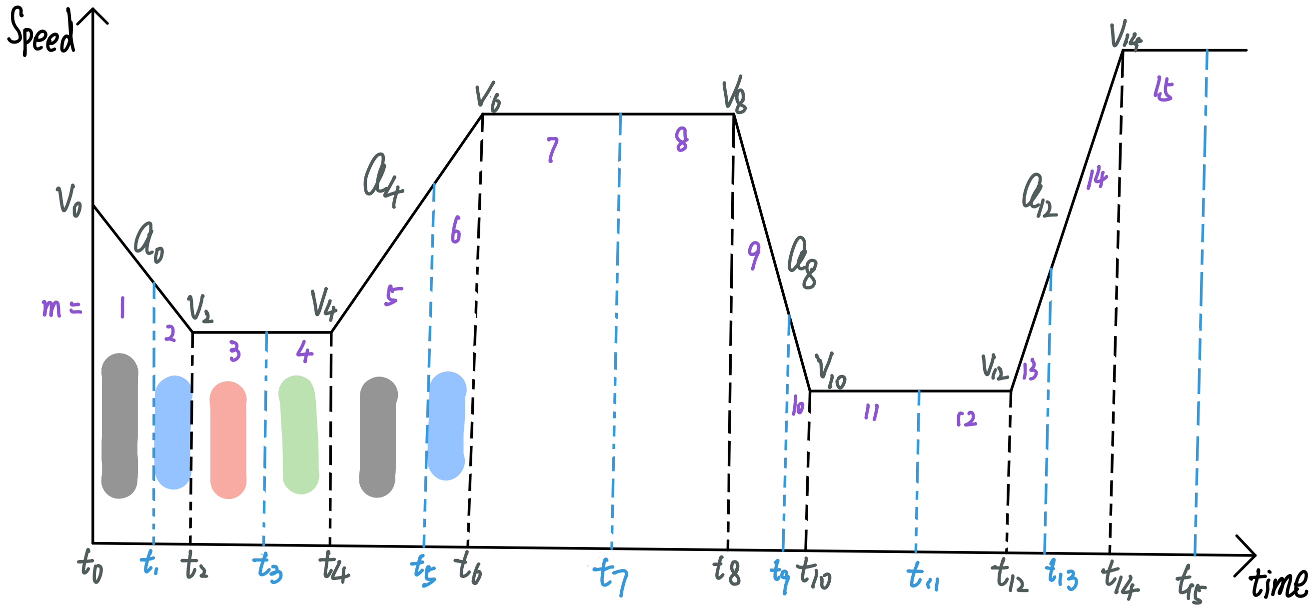


$$P = \gamma v + \mu |a| (M+L) v \quad \text{for each } a's$$

$$W = \int_{t_1}^{t_2} P \, dt = (t_2 - t_1)(\gamma \bar{v} + \mu |a| (M+L) \bar{v})$$

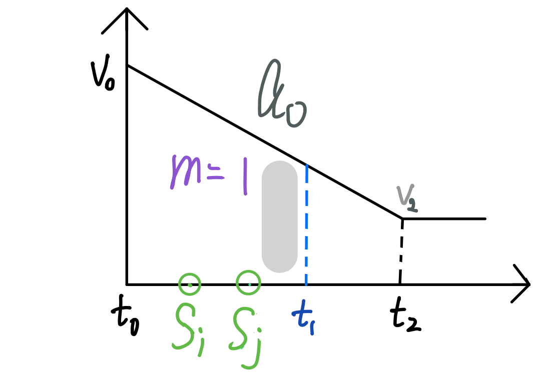
W from t_1 to t_2, when t_1 and t_2 belong to the same time zone.

S_i : departure time at node i

S_j : arrival time at node j

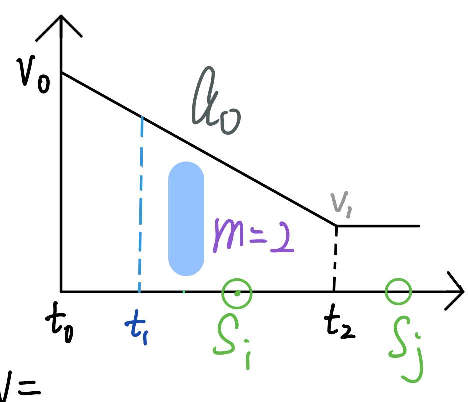
Q_i : current load L

$m = 1, 5, 9, 13$



$$W = \left(r + \mu\,|a_{m-1}|\,(M + Q_i)\right)(S_j - S_i)\,\frac{\overbrace{V_{m-1} + a_{m-1}(S_i - t_{m-1})}^{\text{speed at time } S_i} + \overbrace{V_{m-1} + a_{m-1}(S_j - t_{m-1})}^{\text{speed at time } S_j}}{2}$$

$m = 2, 6, 10, 14$



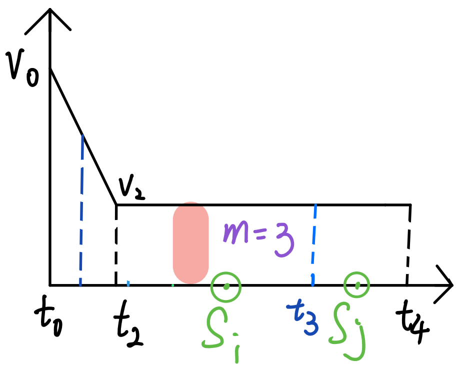
i.e., t_2 as the figure shows

$\Uparrow$

$$W = \left(r + \mu\,|a_{m-2}|\,(M + Q_i)\right)(t_m - S_i)\,\frac{\overbrace{V_{m-1} + a_{m-1}(S_i - t_{m-1})}^{\text{speed at time } S_i} + \overbrace{V_{m-1} + a_{m-1}(S_j - t_{m-1})}^{\text{speed at time } t_{m-1}}}{2}$$

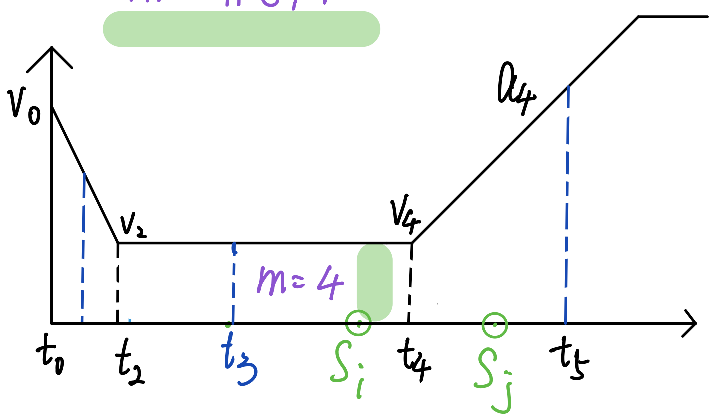
$$+ V_m\, r\, (S_j - t_m)$$

$m = 3, 7, 11, 15$



$$W = V_{m-1}\, r\, (S_j - S_i)$$

$m = 4, 8, 12$



t_4 as shown in figure

$$W = V_m\, r\, (\overset{\Uparrow}{t_m} - S_i)$$

$$+ \left(r + u|a_m|(M + Q_i)\right)(S_j - t_m)\, \frac{\overset{\text{speed at time } t_m}{V_m} + \overbrace{V_m + a_m(S_j - t_m)}^{\text{speed at time } S_j}}{2}$$