

$$\pi = \sum \mu G$$

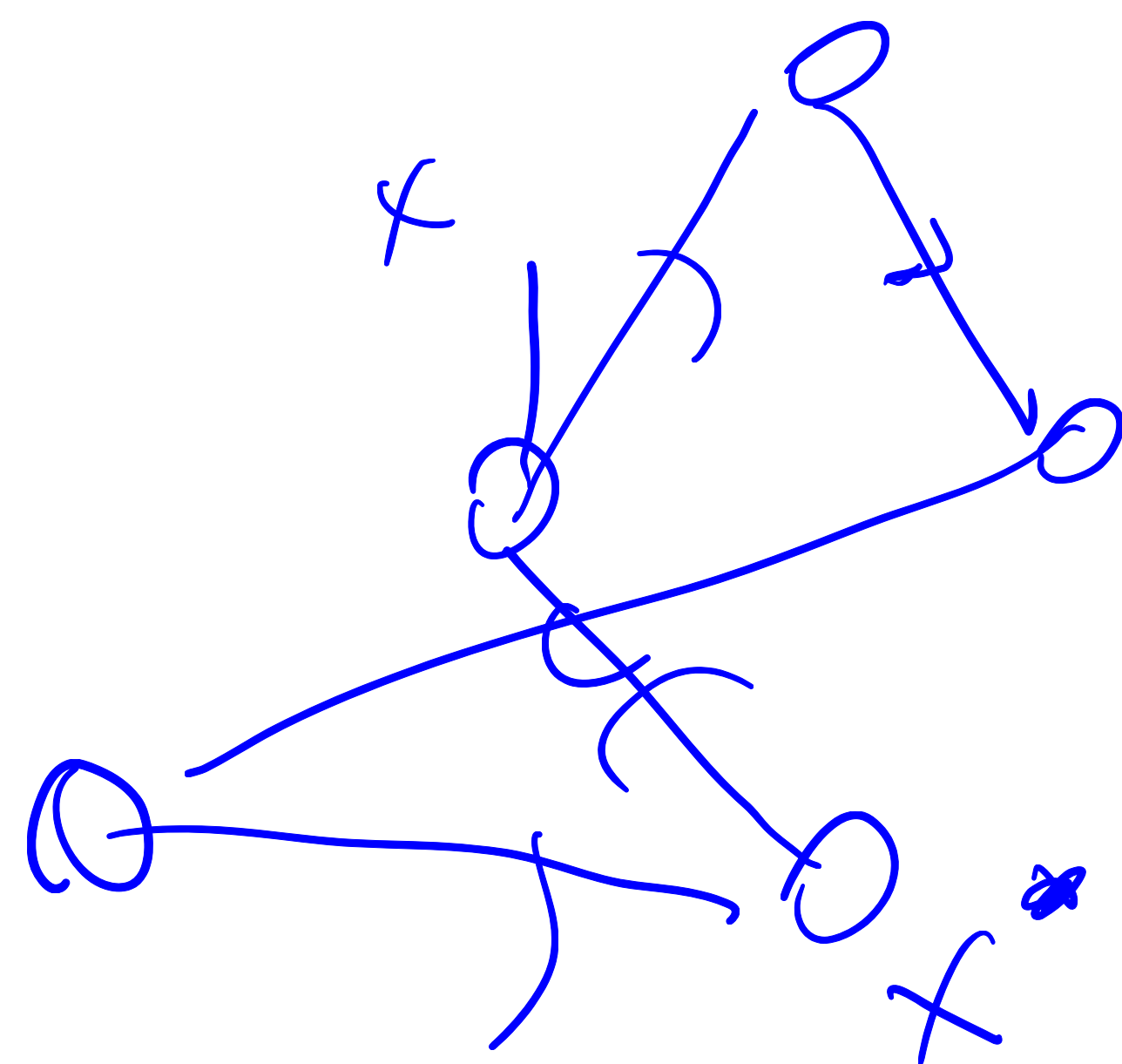
$$\mu = \frac{1}{n} \sum_{i=1}^n x_i$$

$$b(x, y) = \sum_{n \geq 0} \binom{K - \varepsilon \mu}{n} (x, y)^n$$

$$K(x, y) \geq \varepsilon(x) \mu(y)$$

$$\Sigma(x) = K(x, x)$$

$$T^* = \min_{n \geq 1} \{X_n = x^*\}$$



K - ε

$$= K(x, y) - K(x, y) \Big|_{y=x}$$

$$= K(x, y) \mathbb{1}_{y \neq x^c}$$

$$= P_X(X_1 = y, y \neq x^i)$$

similarly

$$(K - \epsilon_n)^n = \mathbb{P}_x(X_n = y, T > n)$$

$$= E_x [1_{X_n = y, T^0 > n}]$$

$$\pi(y) = \frac{\mu(y)}{p(x)} = \frac{p(y)}{p(x)} = \frac{E_{x^*} \left[\sum_{n=0}^{\tau^*-1} \mathbb{1}_{x_n=y} \right]}{E_{x^*} [\tau^*]}$$

\downarrow

$$\mu(y) = \sum_{n \geq 0} E_{x^*} \left[\mathbb{1}_{y=x_n, \tau^* > n} \right]$$

$$= E_{x^*} \left[\underbrace{\sum_{n=0}^{\tau^*-1} \left[\mathbb{1}_{y=x_n} \right]}_{\text{number of visits to } y} \right] = \underline{p(y)}$$

