$$\Pr(M_X(\alpha,t) \geqslant x) =$$

$$\Pr\left(\int_0^t 1(X(s) \leq x) d\, s < \alpha t \right) =$$

$$\Pr\left(\int_0^t 1(X(s) > x) d\, s \geqslant (1-\alpha) t \right) =$$

$$\Pr\left(\int_{\tau_x}^{t} 1(X(s) > x)ds \geqslant (1-\alpha)t \right) =$$

$$\int_0^{\alpha t} \Pr(\tau_x \in du) \Pr\left(\int_0^{t-u} 1(X^*(s) > 0)ds \geqslant (1-\alpha)t \right) =$$

$$\int_0^{\alpha t} \Pr(\tau_x \in du) \Pr\left(\theta^*(t-u) \geqslant (1-\alpha)t \right) =$$

$$\int_0^{\alpha t} \Pr(\tau_x \in du) \Pr\left(\sup_{0 \leqslant s \leqslant (1-\alpha)t} X^*(s) < \sup_{(1-\alpha)t \leqslant s \leqslant t-u} X^*(s) \right) =$$

$$\int_0^{\alpha t} \Pr(\tau_x \in du)$$

$$\Pr\left(\sup_{0 \leqslant s \leqslant (1-\alpha)t} X^*(s) - X^*((1-\alpha)t) < \sup_{(1-\alpha)t \leqslant s \leqslant t-u} X^*(s) - X^*((1-\alpha)t) \right) =$$

$$\int_0^{\alpha t} \Pr(\tau_x \in du) \Pr\left(\sup_{0 \leqslant s \leqslant \alpha t - u} X^{**}(s) + \inf_{0 \leqslant s \leqslant (1-\alpha)t} X^{(2)}(s) > 0 \right) =$$

$$\Pr\Bigg(\sup_{0 \leqslant s \leqslant \alpha t} X^{(1)}(s) - x + \inf_{0 \leqslant s \leqslant (1-\alpha) t} X^{(2)}(s) > 0 \Bigg)$$