procedure $SA(f : X \mapsto \mathbb{R}, T_0, \varepsilon)$ randomly sample x_c from $X: y_c \leftarrow f(x_c)$:

if $\mathfrak{R}^1 < e^{\frac{y_c - y_n}{T}}$ then \triangleright always true if $y_n \leq y_c$

 $x_n \leftarrow move(x_c); y_n \leftarrow f(x_n);$

 $x_c \leftarrow x_n; \ y_c \leftarrow y_n;$

while ¬ terminate do