Algorithm 1 Nesterov's Accelerated Gradient Descent

1: **Input:** $x_0, f(x), K$
2: **Initialize:** $\lambda_1 \leftarrow 1$
3: **for** $k = 1$ **to** K **do**
4: $\quad \lambda_{k+1} \leftarrow \frac{1+\sqrt{1+4\lambda_k^2}}{2}$
5: $\quad$ Update step for x_k
6: **end for**

See Algorithm 1 for the detailed steps.