

How to Write and Analyze an Algorithm

Mohammed Rizin

Unemployed

March 19, 2025

1 How to Write an algorithm

Algorithm 1 Swapping two numbers

procedure SWAP(a, b)

$a \rightarrow temp$

$b := a$

$b \leftarrow temp$

end procedure

We can write algorithm in any format. The intent behind writing an algorithm is to make it easy for the programmer to quickly understand it and make it into program.

$$\begin{aligned}\int_0^{\frac{\pi}{2}} \sin x \, dx &= [-\cos x]_0^{\frac{\pi}{2}} \\ &= -\cos \frac{\pi}{2} - (-\cos 0) \\ &= 0 + 1 = 1\end{aligned}\tag{2}$$