

Data Structure & Algorithms

Algorithms

↳ sequence of finite steps



finite amount of time

Sequence of steps

Multiply two numbers

- 1) Take two numbers $\rightarrow a$ & b
- 2) Take $c = a \times b$
- 3) Return c

Properties of Algorithms

- 1) Terminate after finite amount of time
- 2) Produce atleast one output
- 3) Independent of any programming language
- 4) unambiguous (Deterministic)

| | |
|-------------------|---|
| 2×3 6 | 2×3 10 |
|-------------------|---|

Is this a valid algorithm or not??

code

while (True) {

System.out.println("My name is Priya")

Infinite times ↳ Not a valid algorithm