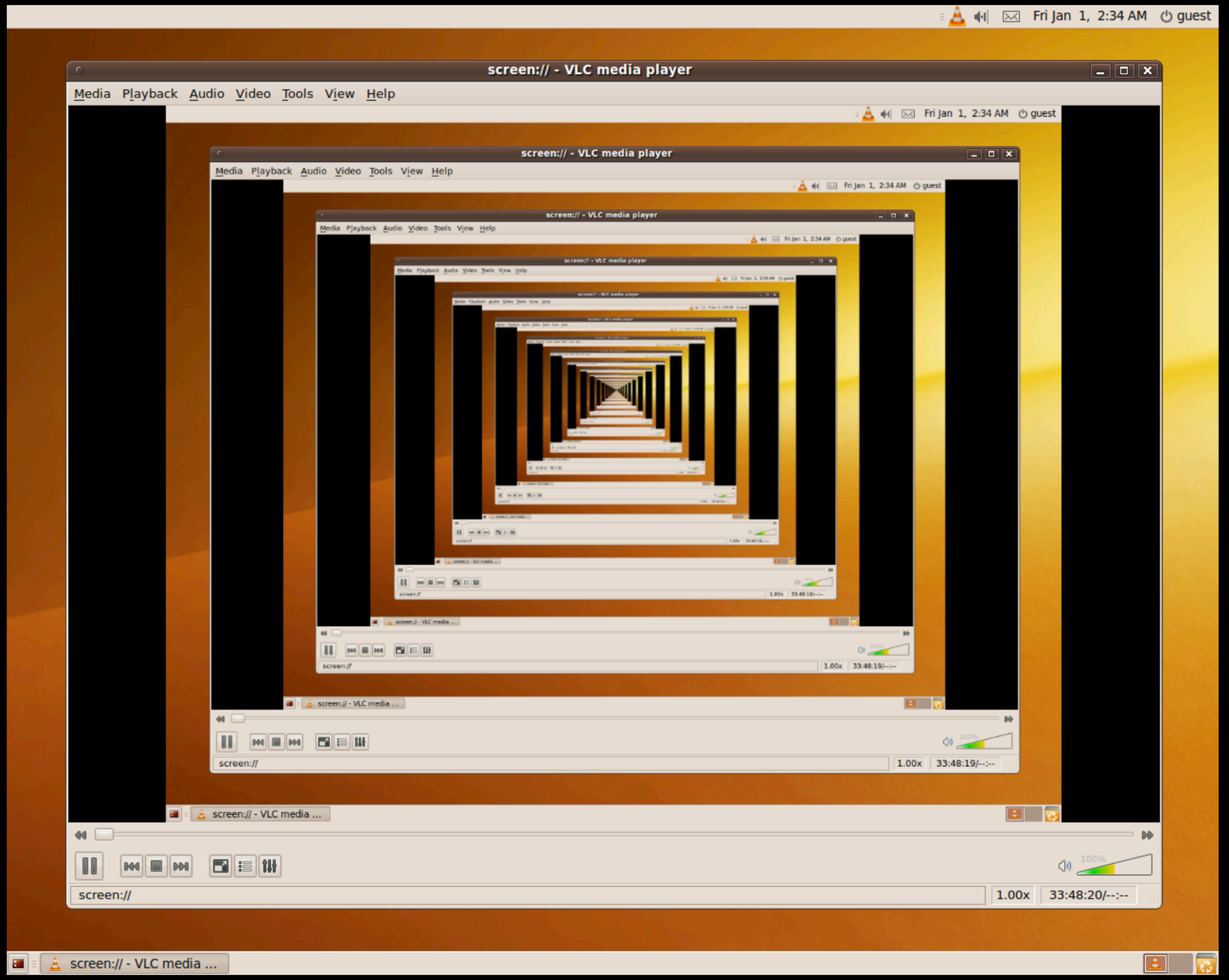
광주 인공지능 사관학교

인공지능을 위한 알고리즘

LIKE LION

재귀
(Recursion)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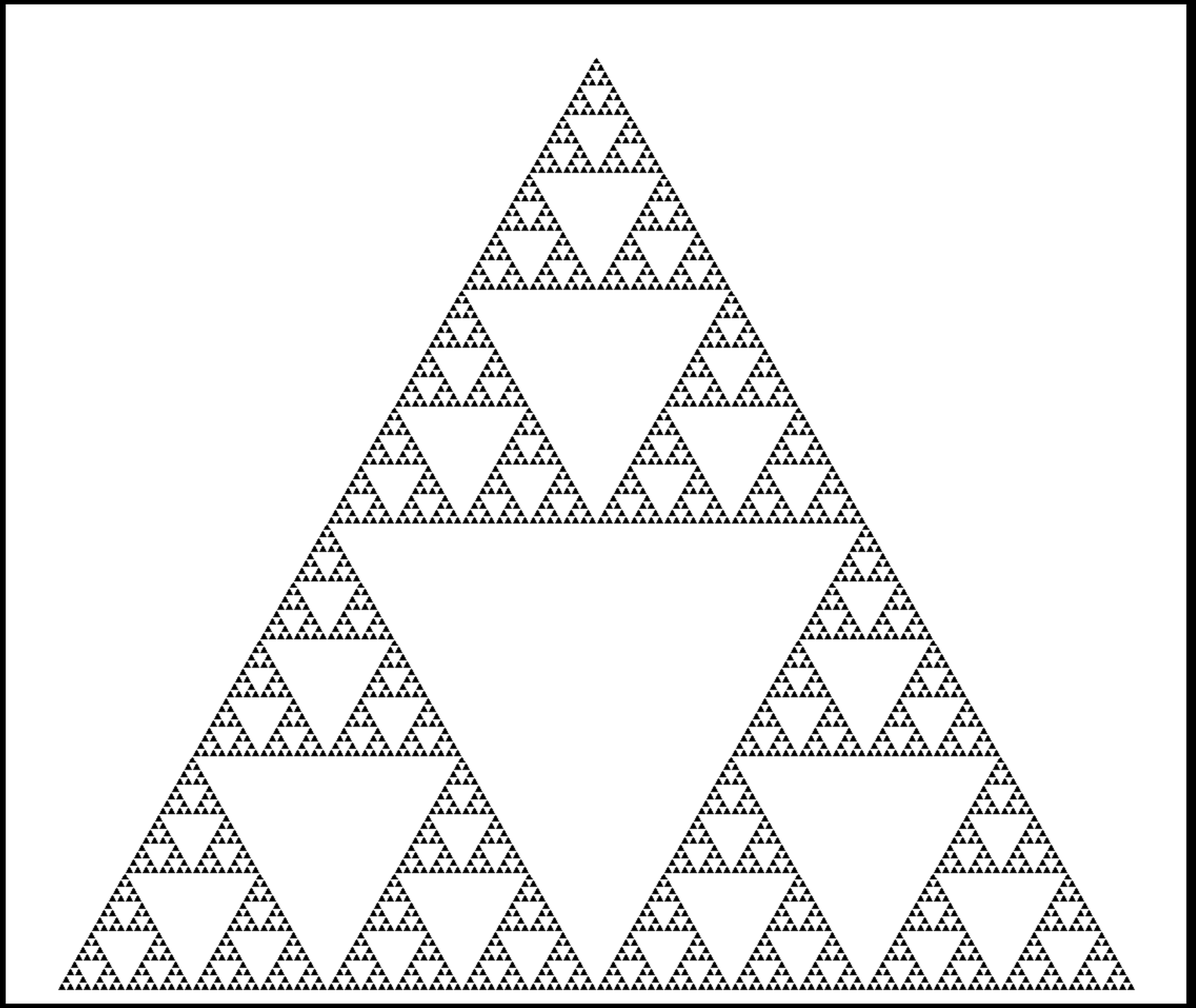
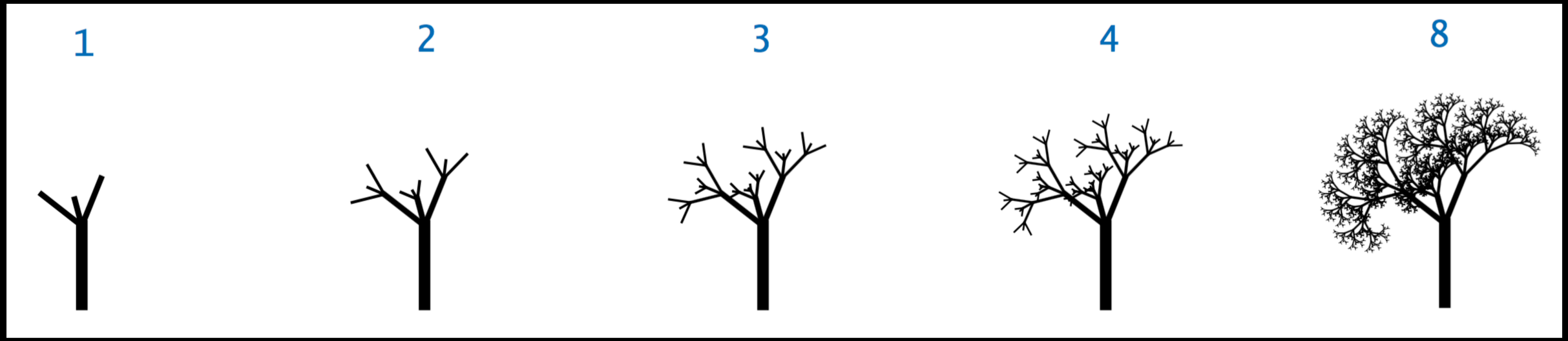
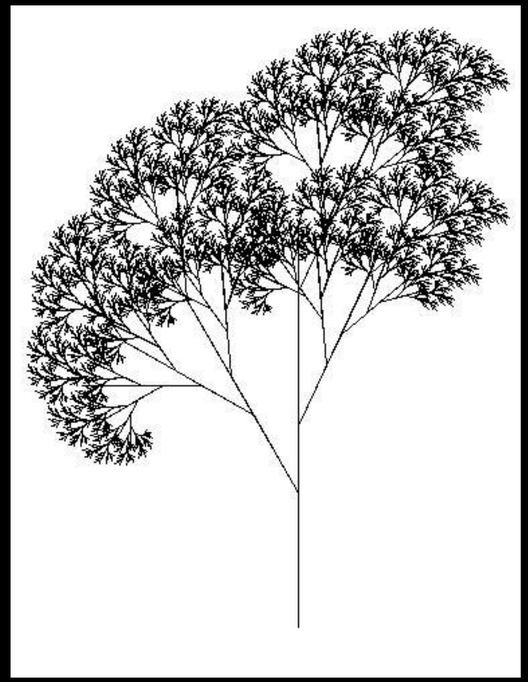



1
2
3
4
8

Recursion is a method of solving a problem where the solution depends on solutions to smaller instances of the same problem.

Such problems can generally be solved by iteration, but this needs to identify and index the smaller instances at programming time.



```python
# 팩토리얼 구하기

num = 10
result = 1

for i in range(num, 0, -1):
    result *= i

print(result)
```

```python
# 팩토리얼 구하기 (재귀)

target_num = 10

def factorial(num):
    if num == 1:
        return 1

    return num * factorial(num-1)

print(factorial(target_num))
```

재귀 제한

```
import sys
sys.getrecursionlimit()

...

sys.setrecursionlimit(10**20)
```