```
Traceback (most recent call last):
  File "<stdin>", line 1, in <module>
NameError: name 'pd' is not defined
```

```
>>> import numpy as np, pandas as pd, matplotlib.pyplot as plt, seaborn as sns, sklearn, os, sys, warnings
>>> warnings.filterwarnings('ignore')
>>> print('numpy', np.__version__)
>>> print('pandas', pd.__version__)
>>> print('matplotlib', plt.__version__)
>>> print('seaborn', sns.__version__)
>>> print('sklearn', sklearn.__version__)
>>> print('python', sys.version.split()[0])
numpy 1.26.4
pandas 2.2.2
matplotlib 3.8.4
seaborn 0.13.2
sklearn 1.4.2
python 3.10.12
```

```
>>> !ls -lh /usr/share/fonts/truetype/nanum/ 2>/dev/null | head -5
total 2.9M
-rw-r--r-- 1 root root 180K Feb 23  2015 NanumBarunGothic.ttf
-rw-r--r-- 1 root root 180K Feb 23  2015 NanumBarunGothicBold.ttf
-rw-r--r-- 1 root root 180K Feb 23  2015 NanumBarunGothicLight.ttf
-rw-r--r-- 1 root root 180K Feb 23  2015 NanumBarunGothicUltraLight.ttf
```

```
>>> !fc-list :lang=ko | head -5
/usr/share/fonts/truetype/nanum/NanumBarunGothic.ttf: NanumBarunGothic,나눔바른고딕:style=Regular
/usr/share/fonts/truetype/nanum/NanumBarunGothic.ttf: NanumBarunGothic,나눔바른고딕:style=Light
/usr/share/fonts/truetype/nanum/NanumBarunGothic.ttf: NanumBarunGothic,나눔바른고딕:style=UltraLight
/usr/share/fonts/truetype/nanum/NanumBarunGothic.ttf: NanumBarunGothic,나눔바른고딕:style=Bold
/usr/share/fonts/truetype/nanum/NanumBarunGothic.ttf: NanumBarunGothic,나눔바른고딕:style=Regular
```

```
>>> import os, matplotlib, matplotlib.pyplot as plt, matplotlib.fontmanager as fm
>>> print('matplotlib', matplotlib.__version__)
>>> print('cache dir', matplotlib.get_cachedir())
>>> print('rc keys', len(matplotlib.rcParams))
matplotlib 3.8.4
cache dir /root/.cache/matplotlib
rc keys 300
```

```
>>> print('rc font.family', matplotlib.rcParams['font.family'])
>>> print('rc font.sans-serif', matplotlib.rcParams['font.sans-serif'])
>>> print('rc axes.unicode_minus', matplotlib.rcParams['axes.unicode_minus'])
rc font.family ['sans-serif']
rc font.sans-serif ['DejaVu Sans', 'Bitstream Vera Sans', 'Computer Modern Sans Serif', 'Lucida Grande', 'Verdana', 'Geneva', 'Lucid', 'Arial', 'Helvetica', 'Avant Garde', 'sans-serif']
rc axes.unicode_minus True
```

```
>>> print('ttf', len(fm.ttflist))
>>> print('ttf 나눔', [f.name for f in fm.ttflist if '나눔' in f.name])
ttf 3
ttf 나눔 ['NanumBarunGothic', 'NanumBarunGothic', 'NanumBarunGothic']
```

```
>>> print('ttf 나눔', [f.name for f in fm.ttflist if '나눔' in f.name])
ttf 나눔 ['NanumBarunGothic', 'NanumBarunGothic', 'NanumBarunGothic']
```

```
>>> print('ttf', len(fm.ttflist))
ttf 3
```

정답:

정답은 [redacted]이다. 이는 [redacted]이기 때문이다. [redacted]이기 때문이다. [redacted]이기 때문이다.