

Question 2 - A Coach tracked the number of points that each of his 30 players on the team had in one game. The points scored by each player is given below. Visualize the data using ordered stem-leaf plot and also detect the outliers and shape of the distribution. 22, 21, 24, 19, 27, 28, 24, 25, 29, 28, 26, 31, 28, 27, 22, 39, 20, 10, 26, 24, 27, 28, 26, 28, 18, 32, 29, 25, 31, 27.

```
In [ ]: import sys
        !{sys.executable} -m pip install stemgraphic

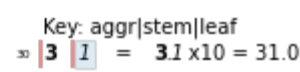
Collecting stemgraphic
  Downloading stemgraphic-0.9.1-py3-none-any.whl (61 kB)
Requirement already satisfied: matplotlib in c:\users\hp\anaconda3\lib\site-packages (from stemgraphic) (3.3.4)
Requirement already satisfied: seaborn in c:\users\hp\anaconda3\lib\site-packages (from stemgraphic) (0.11.1)
Collecting docopt
  Downloading docopt-0.6.2.tar.gz (25 kB)
Requirement already satisfied: pandas in c:\users\hp\anaconda3\lib\site-packages (from stemgraphic) (1.2.4)
Requirement already satisfied: kiwisolver>=1.0.1 in c:\users\hp\anaconda3\lib\site-packages (from matplotlib->stemgraphic) (1.3.1)
Requirement already satisfied: pyparsing!=2.0.4,!=2.1.2,!=2.1.6,>=2.0.3 in c:\users\hp\anaconda3\lib\site-packages (from matplotlib->stemgraphic) (2.4.7)
Requirement already satisfied: python-dateutil>=2.1 in c:\users\hp\anaconda3\lib\site-packages (from matplotlib->stemgraphic) (2.8.1)
Requirement already satisfied: numpy>=1.15 in c:\users\hp\anaconda3\lib\site-packages (from matplotlib->stemgraphic) (1.20.1)
Requirement already satisfied: cycler>=0.10 in c:\users\hp\anaconda3\lib\site-packages (from matplotlib->stemgraphic) (0.10.0)
Requirement already satisfied: pillow>=6.2.0 in c:\users\hp\anaconda3\lib\site-packages (from matplotlib->stemgraphic) (8.2.0)
Requirement already satisfied: six in c:\users\hp\anaconda3\lib\site-packages (from cycler>=0.10->matplotlib->stemgraphic) (1.15.0)
Requirement already satisfied: pytz>=2017.3 in c:\users\hp\anaconda3\lib\site-packages (from pandas->stemgraphic) (2021.1)
Requirement already satisfied: scipy>=1.0 in c:\users\hp\anaconda3\lib\site-packages (from seaborn->stemgraphic) (1.6.2)
Building wheels for collected packages: docopt
  Building wheel for docopt (setup.py): started
  Building wheel for docopt (setup.py): finished with status 'done'
  Created wheel for docopt: filename=docopt-0.6.2-py2.py3-none-any.whl size=13705 sha256=e7dd94fa6f08f25f99489cb5090e51648c3b0970762f418df119aa9b301789b8
  Stored in directory: c:\users\hp\appdata\local\pip\cache\wheels\56\ea\58\ead137b087d9e326852a851351d1debf4ada529b6ac0ec4e8c
Successfully built docopt
Installing collected packages: docopt, stemgraphic
Successfully installed docopt-0.6.2 stemgraphic-0.9.1
```

```
In [ ]: import stemgraphic
        from matplotlib import pyplot as plt
```

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In [ ]: points = [22, 21, 24, 19, 27, 28, 24, 25, 29, 28, 26, 31, 28, 27, 22, 39, 20,
```

```
In [ ]: stemgraphic.stem_graphic(points, scale = 10)
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Out[ ]: (<Figure size 540x108 with 1 Axes>,
        <matplotlib.axes._axes.Axes at 0x164d96cfd90>)
```



```
stems = [1, 1, 1, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2]
```

```
plt.ylabel('Points Scored')
plt.xlabel('Stem')
plt.xlim(0, 10)
plt.stem(stems, points)
```

```
<StemContainer object of 3 artists>
```

