```python
import numpy as np
import matplotlib.pyplot as plt
import pandas as pd
from sklearn import linear_model


url = 'https://raw.githubusercontent.com/WildanBudiawanZ/pembelajaran-mesin/main/FuelConsu
cdf = pd.read_csv(url)

cdf
```

	MODELYEAR	MAKE	MODEL	VEHICLECLASS	ENGINESIZE	CYLINDERS	TRANSMISSION
0	2014	ACURA	ILX	COMPACT	2.0	4	AS5
1	2014	ACURA	ILX	COMPACT	2.4	4	M6
2	2014	ACURA	ILX HYBRID	COMPACT	1.5	4	AV7
3	2014	ACURA	MDX 4WD	SUV - SMALL	3.5	6	AS6
4	2014	ACURA	RDX AWD	SUV - SMALL	3.5	6	AS6
...	...	...	...	...	...	...	...
1062	2014	VOLVO	XC60 AWD	SUV - SMALL	3.0	6	AS6
1063	2014	VOLVO	XC60 AWD	SUV - SMALL	3.2	6	AS6
1064	2014	VOLVO	XC70 AWD	SUV - SMALL	3.0	6	AS6

```python
cdf.describe()
```

	MODELYEAR	ENGINESIZE	CYLINDERS	FUELCONSUMPTION_CITY	FUELCONSUMPTION_HWY
count	1067.0	1067.000000	1067.000000	1067.000000	1067.000000
mean	2014.0	3.346298	5.794752	13.296532	9.474602
std	0.0	1.415895	1.797447	4.101253	2.794510
min	2014.0	1.000000	3.000000	4.600000	4.900000
25%	2014.0	2.000000	4.000000	10.250000	7.500000
50%	2014.0	3.400000	6.000000	12.600000	8.800000
75%	2014.0	4.300000	8.000000	15.550000	10.850000
max	2014.0	8.400000	12.000000	30.200000	20.500000

```
reg = linear_model.LinearRegression()
reg.fit(cdf[['MODELYEAR', 'ENGINESIZE', 'CYLINDERS']], cdf.CO2EMISSIONS)
```

```
    LinearRegression()
```

```
reg.coef_
```

```
    array([ 0.        ,  28.2453302 ,   9.17586088])
```

```
reg.intercept_
```

```
    108.5395508193881
```

```
reg.predict([[2014, 3.3, 6]])
```

```
    /usr/local/lib/python3.7/dist-packages/sklearn/base.py:451: UserWarning: X does not h
      "X does not have valid feature names, but"
    array([256.80430574])
```

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