```
import pandas as pd
import numpy as np
```

```
df=pd.read_csv("/content/maaslar.csv")
```

```
df.head(5)
```

	unvan	Egitim Seviyesi	maas
0	Cayci	1	2250
1	Sekreter	2	2500
2	Uzman Yardimcisi	3	3000
3	Uzman	4	4000
4	Proje Yoneticisi	5	5500

```
x = np.array(df['Egitim Seviyesi'])
y = np.array(df['maas'])
```

```
x=x.reshape(-1,1)
y=y.reshape(-1,1)
```

```
from sklearn.model_selection import train_test_split
```

```
x_train, x_test, y_train, y_test = train_test_split(x, y, test_size=0.3, random_state=42)
```

```
print('Sample Train:',x_train.shape)
```

```
Sample Train: (7, 1)
```

```
x_test.shape
```

```
(3, 1)
```

```
from sklearn.svm import SVR
```

```
svm_linear = SVR(kernel='rbf')
```

```
svm_linear.fit(x_train,y_train.ravel())
```

```
▾ SVR
SVR()
```

```
y_pred = svm_linear.predict(x_test)
```

```
from sklearn.metrics import r2_score
```

```
r2 = r2_score(y_test, y_pred)
print('R2 Score:', r2)
```

```
R2 Score: -0.4081870517116406
```

```
from sklearn.metrics import mean_squared_error
```

```
mse = mean_squared_error(y_test, y_pred)
print('MSE:', mse)
```

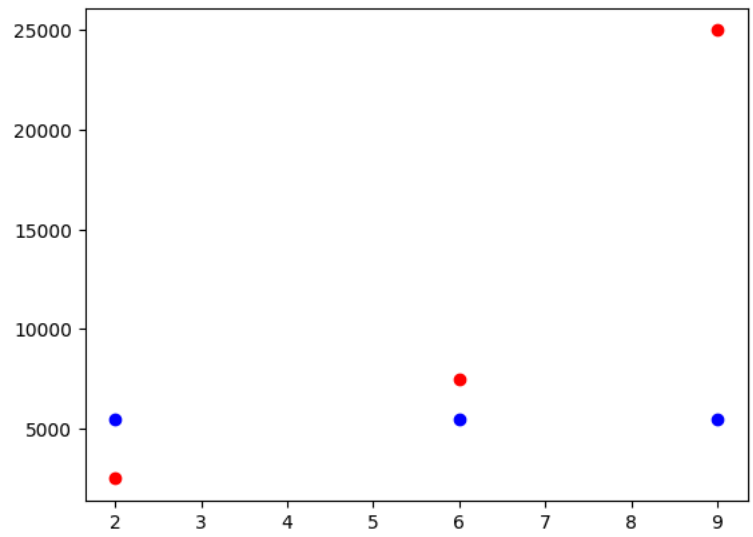
```
MSE: 131039628.42316653
```

```
rmse = np.sqrt(mse)
rmse
```

```
np.float64(11447.254187060167)
```

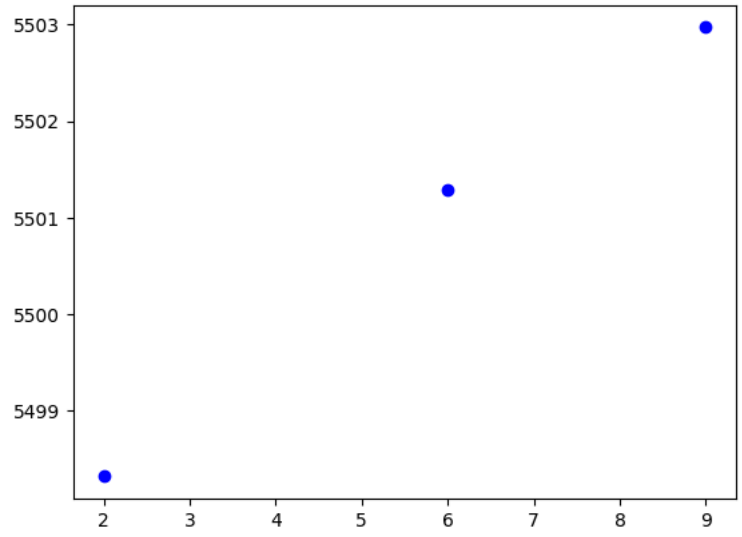
```
import matplotlib.pyplot as plt
```

```
plt.scatter(x_test,y_test,color='red')
plt.show()
```




```
plt.scatter(x_test,y_pred,color='blue')
```

```
<matplotlib.collections.PathCollection at 0x7a6e05acc710>
```




```
from sklearn.model_selection import GridSearchCV
```

```
grid_params = {'C': [0.1,1,6,3,2,4],'gamma':[0.5,5,4,0.9,3,2]}
```

```
svr_model = SVR(kernel='rbf')
grid_search = GridSearchCV(svr_model, grid_params, cv=5)
grid_search.fit(x_train, y_train.ravel())
```